

Sections 4 and 5

Catalogue No 101

**James Chesterman & Co Ltd**

**SHEFFIELD ENGLAND**



TRADE MARKS



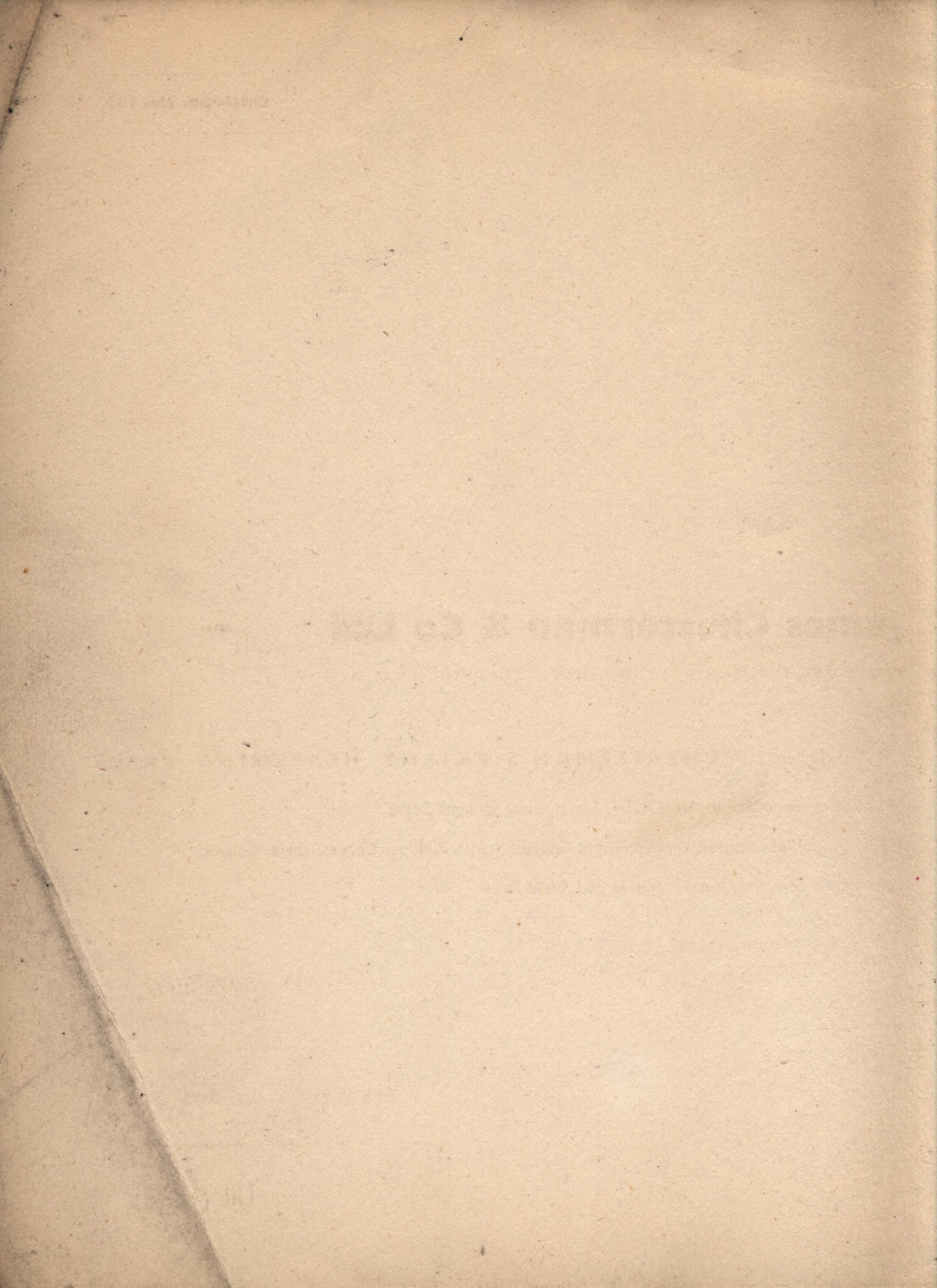
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# James Chesterman & Co Ltd

BOW WORKS, ECCLESALL ROAD, SHEFFIELD 11, ENGLAND

Sole Manufacturers of **CHESTERMAN'S PATENT MEASURING TAPES**

*Land Chains, Band Chains, Steel Rules, Scales, Steel Straight Edges,*

*T-squares, Calliper Gauges, Vernier Height Gauges, Vernier Calliper Gauges, Feeler Gauges,*

*Combination Sets, Engineers' Precision and Allied Tools*

Trade Marks

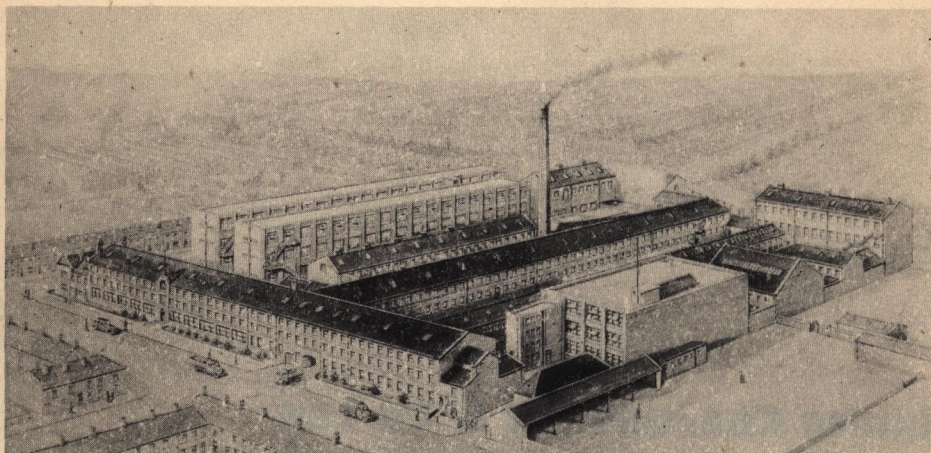


TRE  BLE



TREBLE

OUR TRADE MARKS



BOW WORKS, SHEFFIELD, ENGLAND

JAMES CHESTERMAN & CO. LTD., SHEFFIELD 11, ENGLAND



BOW WORKS, SHEFFIELD 11, ENGLAND

March, 1949

## Foreword

For over a century we have been manufacturing Woven and Steel Tapes, as well as various other instruments for measuring, and it has always been our aim and object to provide our customers with a high-class article at a reasonable price.

All our goods are manufactured entirely in our own works, and are carefully tested before they leave; they are also marked with our name or one of the three following trade marks:



The accompanying catalogue is presented with our compliments. Attention is called to New Designs and improvements which have been added to our lines and listed in this catalogue for the first time as follows:—

	Pattern No.		Pattern No.
Vernier Depth Gauge ... ..	1981	Folding Steel Rules 248, 248/1, 248/2, 248/3	
Vernier Calliper Gauge		Welding Fillet Gauge ... ..	2930
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Calliper Gauge ... ..	775, 775/1, 775/2	Turners' Folding Width Gauge and Rule	1706
Roller Setting Gauge	1911, 1912, 1913, 1914	New Compact Flush Handle for Wind-up	
Steel Parallels ... ..	2950, 2951	Steel and Woven Measuring Tapes.	
Micrometers ... ..	2900, 2900/2, 2901		

**Brass Flush Handles.** We are not in production of all sizes of our Compact Flush Handles, and the illustrations do not necessarily conform to the printed description in all cases.

Please therefore note we must supply according to our manufacturing programme until such time as we can produce all types of handles in all sizes.

Attention is also particularly drawn to the use of Reinforced Plastic in addition to Leather for measuring tape cases.

We have only included in this list the most popular and saleable patterns, but we shall always be pleased to consider any suggestions for improvement or alteration.

JAMES CHESTERMAN & CO. LTD.



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**Section 4**

STEEL STRAIGHT EDGES

DRAUGHTSMEN'S STEEL SCALES

STEEL BENCH RULES

STEEL PLATE RULES

BRASS COUNTER RULES

STEEL RULES (VARIOUS)

JOINTED RULES

## **Steel Straight Edges and Rules**

Our Steel Rules and Straight Edges are made from the finest Steel, Hardened, Tempered, and Polished on our own special plant.

They are Precision Ground on the flats and edges, and this, coupled with the extremely fine dividing, makes them the most accurate and reliable on the market.

Rules up to 36 in. length and  $1\frac{1}{8}$  in. wide are usually supplied with one square end and one round or "D" end.

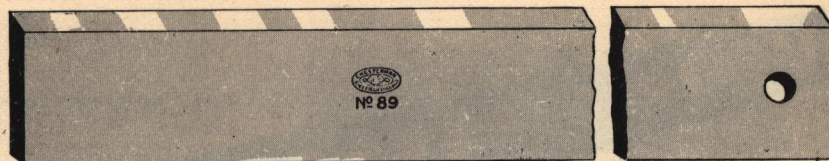
Rules over 36 in. length and  $1\frac{1}{2}$  in. wide are usually supplied with both ends square, and with  $\frac{1}{4}$  in. to  $\frac{1}{2}$  in. of plain at each end. We can, however, supply either way as requested.

We are now able to supply most of our leading patterns of Rules in Rustless Steel at an extra price; also we have withdrawn the Nickel-plated Straight Edge from the list, and are now supplying these in Rustless Steel, which are more satisfactory.





## Precision Ground, for Engineers (plain)



No. 89.—Bright Steel, with one edge bevelled to an angle of about 30 degrees, and with hole at end.

Width and thickness...	$1\frac{1}{2} \times \frac{1}{8}$				$2\frac{1}{2} \times \frac{1}{4}$				$3 \times \frac{1}{8}$				$3\frac{1}{2} \times \frac{3}{8}$ inches			
Length in centimetres	30	—	50	—	75	—	100	—	125	—	150	—	175	—	200	—
Length in inches	12	18	—	24	30	36	—	42	48	54	60	66	—	72	—	—
No. 89	17/-	23/6	27/-	33/6	47/-	56/-	61/6	74/-	90/-	102/6	116/-	129/-	140/6	147/6	164/-	each

We can also supply longer lengths in the rectangular section (without bevel).

Width and thickness	...	...	...	...	$3\frac{1}{2} \times \frac{3}{8}$	$4 \times \frac{1}{2}$	$4\frac{1}{2} \times \frac{1}{2}$	$5 \times \frac{1}{2}$	$6 \times \frac{3}{8}$ inches
Length in inches	...	...	...	...	84	96	108	120	144 inches
No. 89N.	...	...	...	...	£9	£14 10s.	£19 15s.	£27	£54 each

## Hardened Steel Straight Edges



Made of high-grade, rectangular section, hardened on edges, and made to specification of **The British Standards Institute**.

Both edges are hardened and finished to **Grade A** (British Standards Institute) as regards parallelism and flatness, etc.

On straight edges of three feet and longer, positions for supporting the Straight Edge when used on the edge to ensure minimum of deflection, are indicated by "arrows" and the word **support** engraved on the face.

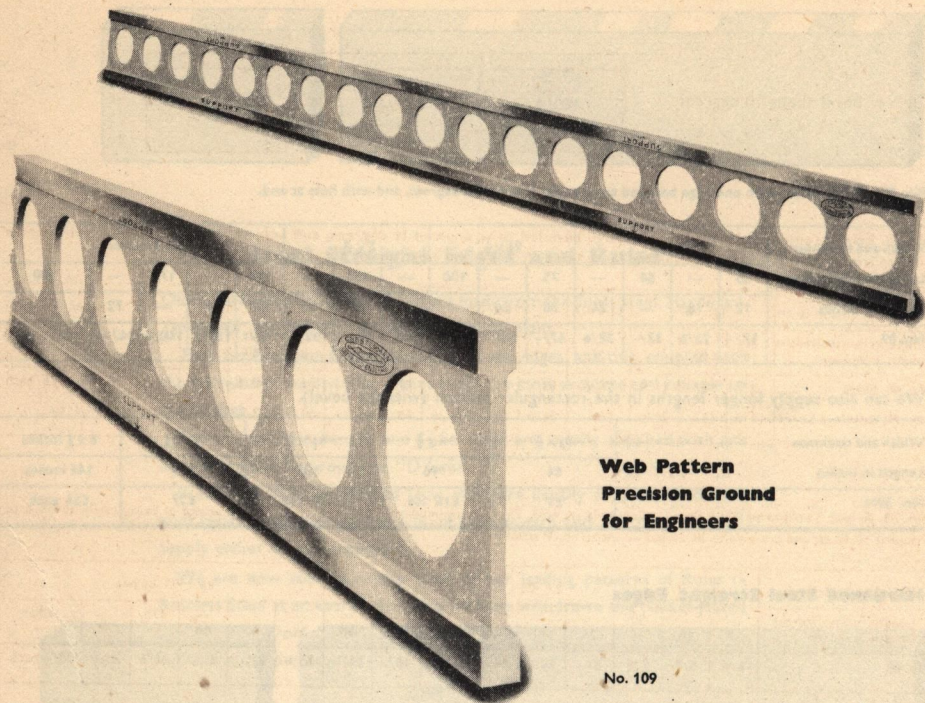
Each Straight Edge can be supplied in a suitable baize lined wood case.

Width and Thickness	$1\frac{1}{2} \times \frac{1}{4}$	$2 \times \frac{1}{8}$		$2\frac{1}{2} \times \frac{3}{8}$		$3 \times \frac{1}{8}$	$3\frac{1}{2} \times \frac{1}{2}$	$4 \times \frac{1}{2}$	$4\frac{1}{2} \times \frac{3}{8}$	$5 \times \frac{3}{8}$	$5 \times \frac{1}{2}$	$5\frac{1}{2} \times \frac{3}{8}$ inches
Length in inches	12	18	24	30	36	48	60	72	84	96	108	120
No. 107	28/6	40/6	48/-	65/-	72/-	112/-	153/-	£9 9s.	£12 12s.	£18	£23 8s.	£36 each
Cases extra	20/-	22/6	27/-	34/-	36/-	42/-	52/-	62/-	80/-	92/-	108/-	126/- ..





# Steel Straight Edge



**Web Pattern  
Precision Ground  
for Engineers**

No. 109

This is a first-class Straight Edge suitable for laying out Machine Beds, also for building up Machine Tools, Housings, etc. Although it is marked with Support Points for use when special accuracy is required, it is designed to give a minimum amount of deflection when resting in other positions.

It is made to the same accuracy and finish as our Grade "A" Straight Edges.

Discs cut out from the web section enable it to be carried safely with tommy bars, and reduce the weight without loss of weakness through stress.

Size	Length	Depth	Thickness	Approximate Weight	Price
8'	97"	8½"	1½"	125 lb.	£50 each
10'	121½"	9½"	1½"	190 "	£62 10s. "
12'	145"	11"	1½"	275 "	£75 "



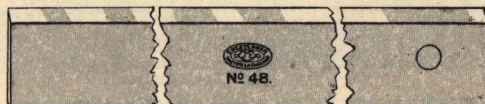
# Steel Straight Edges (Plain) for Draughtsmen

57

Marked with name and trade mark



Angle of bevel about 10 degrees



**No. 48. Bright Tempered Steel, with one edge bevelled to an angle of 10 degrees, and hole at end.** We can also supply them in Rustless Steel, which we strongly recommend for drawing office use, and especially for hot climates.

Width and thickness...	$1\frac{1}{8} \times .07$			$1\frac{1}{2} \times .07$			$1\frac{3}{4} \times .08$			$2 \times .09$		$2\frac{1}{2} \times .09$		$2\frac{1}{2} \times .1$ inches		
Length in centimetres	30	—	50	—	75	—	100	—	125	—	150	—	175	—	200	—
Length in inches	12	18	—	24	30	36	—	42	48	54	60	66	—	72	—	—
<b>No. 48 Steel</b>	6/3	10/-	11/9	14/6	18/-	21/9	23/6	27/-	31/-	36/-	40/6	46/-	51/6	56/-	61/6	each
<b>No. 48R Rustless Steel</b>	11/3	18/-	21/-	26/-	32/6	39/-	42/6	48/6	56/-	64/9	73/-	83/-	93/-	101/-	111/-	..

**No. 88. Bright Tempered Thin Steel, with hole at end.** These being made of Thin Steel have the advantage of being easily adapted to irregular surfaces, and are able to be coiled up into a small space.

Width and thickness...	2 × .03									2½ × .03 inches						
Length in centimetres	—	—	50	—	—	—	100	—	—	—	—	—	175	—	—	200
Length in inches¹ ...	12	18	—	24	30	36	—	42	48	54	60	66	—	72	—	—
No. 88 ... ..	4/6	6/6	7/6	8/-	12/-	14/6	16/6	18/-	21/-	23/6	27/-	31/-	32/6	33/6	36/-	each

## For Tinsmiths, Mount Cutters, etc.

**Bright Tempered Steel, with one edge bevelled to an angle of about 40 degrees, and with hole at end.**

Width and thickness ...										$1\frac{1}{2} \times \frac{1}{4}$			$1\frac{1}{2} \times \frac{1}{2}$	$1\frac{3}{4} \times \frac{1}{4}$	$2 \times \frac{1}{4}$			$2\frac{1}{2} \times \frac{1}{4}$ in.	
Length in inches ...										12	18	24	30	36	42	48	54	60	72
No. 90	...	...	...	...	...	...	...	...	...	5/6	6/6	8/6	12/-	18/-	21/6	27/-	31/-	36/-	45/- each

**Bright Steel, with one edge bevelled to an angle of about 40 degrees, and with hole at end.**

Width and thickness ...										$1\frac{1}{2} \times \frac{1}{4}$				$1\frac{3}{4} \times \frac{1}{4}$		$2 \times \frac{1}{4}$		$2\frac{1}{2} \times \frac{1}{4}$ in.	
Length in inches ...										12	18	24	30	36	42	48	54	60	72
No. 91	...	...	...	...	...	...	...	...	...	9/-	12/-	17/6	21/-	27/-	31/-	37/-	45/-	51/6	71/- each



# Steel Straight Edges for Draughtsmen



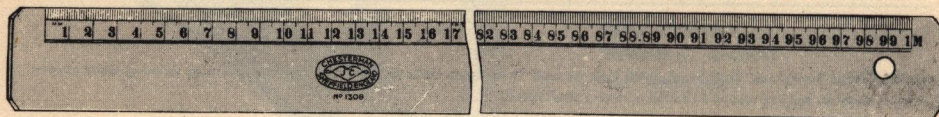
Marked with name and trade mark

## Machine-Divided on one Bevelled Edge (see illustration)



LONDON

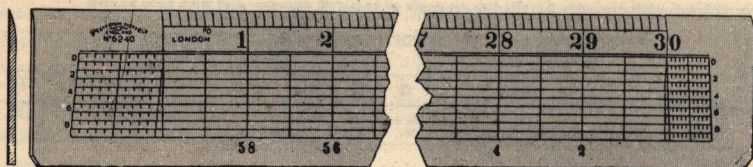
No.	Width and thickness ...		$1\frac{1}{2} \times .07$		$1\frac{1}{2} \times .07$		$1\frac{1}{2} \times .08$		$2 \times .09$		$2\frac{1}{2} \times .09$		$2\frac{1}{2} \times .1$ in.	
	Length in inches ...		12	18	24	30	36	42	48	54	60	66	72	
1305	Inches into 10ths ...	...	9/-	14/6	20/-	24/6	28/-	34/-	40/6	46/-	54/-	61/-	68/6	each
1305R	(Rustless Steel)	...	16/3	26/-	36/-	44/-	50/6	61/6	73/-	83/-	97/-	110/-	123/6	
1306	Inches into 12ths ...	...	9/-	14/6	20/-	24/6	28/-	34/-	40/6	46/-	54/-	61/-	68/6	
1306R	(Rustless Steel)	...	16/3	26/-	36/-	44/-	50/6	61/6	73/-	83/-	97/-	110/-	123/6	
1309	Inches into 16ths ...	...	9/-	15/6	21/-	25/6	30/6	38/-	46/-	51/6	59/6	65/6	77/6	
1309R	(Rustless Steel)	...	16/3	28/-	37/6	45/6	55/-	68/-	83/-	92/6	107/6	118/-	139/6	
1315	Inches into 20ths ...	...	9/-	15/6	21/-	25/6	30/6	38/-	46/-	51/6	59/6	65/6	77/6	
1315R	(Rustless Steel)	...	16/3	28/-	37/6	45/6	55/-	68/-	83/-	92/6	107/6	118/-	139/6	
1316	Inches into 32nds ...	...	10/-	17/-	23/6	29/-	33/6	40/6	51/6	56/-	65/-	71/-	84/6	
1316R	(Rustless Steel)	...	18/-	30/6	42/6	52/-	60/6	73/-	92/6	101/-	117/-	128/-	152/-	
1317	Inches into 64ths ...	...	—	—	32/6	—	50/6	—	68/-	—	90/-	—	120/-	
1317R	(Rustless Steel)	...	—	—	58/6	—	91/-	—	122/-	—	162/-	—	216/-	



No. 1308. METRE

No.	Width and thickness ...	$1\frac{1}{2} \times .07$			$1\frac{1}{2} \times .07$		$1\frac{1}{2} \times .08$		$2 \times .09$		$2\frac{1}{2} \times .09$		$2\frac{1}{2} \times .1$ in.			
	Length in centimetres ...	30	—	50	—	75	—	100	—	125	—	150	—	175	—	200
1308	Into centimetres and millimetres ...	10/-	—	18/-	—	28/-	—	36/-	—	51/6	—	65/-	—	77/6	—	90/- each
1308R	(Rustless Steel) ...	18/-	—	32/6	—	50/6	—	64/9	—	92/6	—	117/-	—	140/-	—	162/- "

## Improved Straight Edge for Draughtsmen

No. 5240  
(About half size)

Divided on one side, top edge bevelled and divided into inches and 10ths with scale at the left hand to obtain .01 of an inch, and one at the right hand to obtain .02 of an inch. This scale is exceedingly useful as (within the limit of its total length), any length can be obtained with beam compasses to the .02 of an inch.

No.	Width and thickness ...		$1\frac{1}{2} \times .07$		$1\frac{1}{2} \times .07$	$1\frac{1}{2} \times .08$		$2 \times .09$	$2\frac{1}{2} \times .09$	$2\frac{1}{2} \times .1$ in.
	Length in inches ...		12	18	24	30	36	48	60	72
5240	Steel ... ..	11/-	18/-	25/6	38/-	46/-	63/-	81/-	101/-	each
5240R	Rustless Steel ... ..	20/-	32/6	46/-	68/-	82/6	113/6	146/-	182/-	"



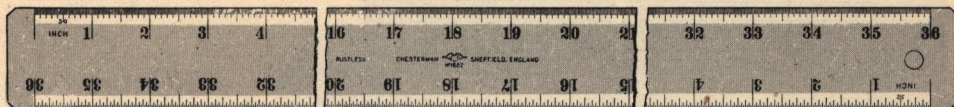
# Steel Straight Edges for Draughtsmen

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Marked with name and trade mark

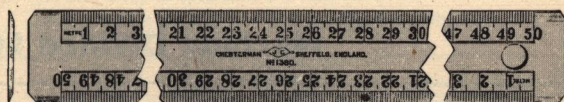


## Machine-Divided on Two Beveled Edges (of one side)



No. 1682. LONDON

No.	Description	Width and thickness		$1\frac{1}{8} \times .07$		$1\frac{1}{2} \times .07$		$1\frac{3}{4} \times .08$		$2 \times .09$		$2\frac{1}{4} \times .09$		$2\frac{1}{2} \times .1$ inches	
		Length in inches		12	18	24	30	36	42	48	54	60	66	72	
1679	Inches into 16ths ...	...	...	12/-	17/-	23/6	31/-	39/-	46/-	51/6	61/-	71/-	77/6	92/-	each
1679R	(Rustless Steel) ...	...	...	21/6	31/-	42/6	55/6	70/6	83/-	92/6	110/-	128/-	139/6	166/-	..
1680	Inches into 16ths and 20ths ...	...	...	12/-	17/-	23/6	31/-	39/-	46/-	51/6	61/-	71/-	77/6	92/-	..
1680R	(Rustless Steel) ...	...	...	21/6	31/-	42/6	55/6	70/6	83/-	92/6	110/-	128/-	139/6	166/-	..
1681	Inches into 10ths and 12ths ...	...	...	12/-	17/-	23/6	31/-	39/-	46/-	51/6	61/-	71/-	77/6	92/-	..
1681R	(Rustless Steel) ...	...	...	21/6	31/-	42/6	55/6	70/6	83/-	92/6	110/-	128/-	139/6	166/-	..
1682	Inches into 50ths and 32nds ...	...	...	15/-	26/-	30/-	42/-	49/-	—	65/-	—	87/-	—	109/-	..
1682R	(Rustless Steel) ...	...	...	27/-	47/-	54/-	75/-	88/-	—	117/-	—	157/-	—	196/-	..



No. 1380. METRE

No.	Description	Width and thickness		$1\frac{1}{8} \times .07$		$1\frac{1}{2} \times .08$		$2 \times .09$		$2\frac{1}{4} \times .09$		$2\frac{1}{2} \times .1$ inches	
		Length in centimetres		30	50	75	100	125	150	175	200		
1380	Into centimetres and millimetres ...	...	...	13/-	24/-	39/-	46/-	61/-	84/-	103/-	114/-	each	
1380R	(Rustless Steel) ...	...	...	23/6	43/-	70/-	83/-	110/-	151/-	185/-	205/-	..	



No. 1383. LONDON AND METRE

No.	Description	Width and thickness		$1\frac{1}{8} \times .07$		$1\frac{1}{2} \times .08$		$2 \times .09$		$2\frac{1}{4} \times .09$		$2\frac{1}{2} \times .1$ inches	
		Length in centimetres Length in inches		30 12	50 —	75 30	100 —	125 48	150 60	175 —	200 —		
1382	Centimetres and millimetres and inches into 10ths ...	...	...	12/-	20/-	31/-	40/6	56/-	77/6	92/-	103/-	each	
1382R	(Rustless Steel) ...	...	...	21/6	36/-	56/-	73/-	101/-	139/6	166/-	185/-	..	
1383	Centimetres and millimetres and inches into 16ths ...	...	...	12/-	20/-	31/-	40/6	56/-	77/6	92/-	103/-	..	
1383R	(Rustless Steel) ...	...	...	21/6	36/-	56/-	73/-	101/-	139/6	166/-	185/-	..	
1385	Centimetres and millimetres and inches into 20ths ...	...	...	12/-	20/-	31/-	40/6	56/-	77/6	92/-	103/-	..	
1385R	(Rustless Steel) ...	...	...	21/6	36/-	56/-	73/-	101/-	139/6	166/-	185/-	..	
1386	Centimetres and millimetres and inches into 32nds ...	...	...	13/6	24/6	40/-	47/-	63/-	84/6	104/-	115/-	..	
1386R	(Rustless Steel) ...	...	...	24/6	44/-	72/-	84/6	113/-	152/-	187/-	207/-	..	

JAMES CHESTERMAN &amp; CO. LTD., SHEFFIELD 11, ENGLAND





## Rustless Steel Drawing Scale



No. 5202R

This Scale is intended to take the place of the ordinary Boxwood Scale with diagonal ruling which is usually found in boxes of Drawing Instruments.

The illustration shows the top side, one edge of which is divided into inches and 12ths, 24ths, etc., and the other edge into inches and 10ths, 20ths, etc. The middle part is divided so that with beam compasses any measurement up to 13 inches may be obtained in 100ths of an inch. The other side is divided into millimetres on one edge, and into inches, 16ths, 32nds, etc., on the other edge, and the centre part is for beam compasses to the 10th of a millimetre.

No. 5202R— $14\frac{1}{2}$  in.  $\times$   $1\frac{1}{4}$  in.  $\times$  .04 in. square edges, 13/- each.

## Machine Divided Steel Scales

### New Process Chromium Matt Rustproof Finish



Made of the best hardened and tempered steel, specially processed with a Chromium Matt Finish which is rustproof. The graduations are very well defined and indelible, with deep-cut shaded figures which contrast to the white surface of the Scale and enables the user to read and determine any desired point under all conditions of lighting. The Scales are permanently accurate and clean to use on paper.

No. 2036 Bevelled on two edges of obverse side. Reverse side flat (see illustration), divided on four edges. Armstrong pattern, open divisions,  $\frac{1}{8}$ ,  $\frac{1}{4}$ ,  $\frac{3}{8}$ ,  $\frac{1}{2}$ ,  $\frac{3}{4}$ ,  $1$ ,  $1\frac{1}{2}$ , and  $3$ .

6"	12"
$\frac{7}{3}$	$\frac{11}{9}$ each

No. 2036/1 Thin steel, not bevelled. Armstrong pattern, open divisions, viz.,  $\frac{1}{8}$ ,  $\frac{1}{4}$ ,  $\frac{3}{8}$ ,  $\frac{1}{2}$ ,  $\frac{3}{4}$ ,  $1$ ,  $1\frac{1}{2}$ , and  $3$ .

6"	12"
$\frac{4}{6}$	$\frac{6}{6}$ each





This scale is specially designed to meet requirements under  
The Ministry of Health Town Planning Schemes



No. 3539

Made of best hardened and tempered Rustless Steel, Flexible,  $1\frac{1}{8} \times .02$  in.

**Machine divided, 4 edges, viz.:**—

Obverse Side: Top Edge: Ministry of Health.

Application:  $1/10560 = 6$  in. to 1 mile.

Bottom Edge: Standard inches and  $1/16$  in.

Reverse Side: Top Edge: Congested Areas  $1/500$ .

Bottom Edge: Plotting  $1/2500$ .

The graduations are well defined and indelible, with deep cut shaded figures which enable the user easily to determine any required point, even under artificial light. The Scales are clean to use on paper and will remain **Permanently Accurate**.

No.	Description	Length ...	6	12 inches
3539	Flexible Steel, not bevelled, $1\frac{1}{8}$ in. wide $\times$ .02 in. thick	...	5/6	9/- each
3039	Strong Section, bevelled on all four edges	...	7/3	12/- "

## Rustless Steel Scale for Contractors and Builders

**Machine divided on 4 edges, viz.:**—

Obverse Side: Top Edge: Scales  $\frac{1}{8}$  and  $\frac{1}{4}$  in.

Bottom Edge:  $\frac{1}{2}$  and 1 in.

Reverse Side: Top Edge:  $1/500$ .

Bottom Edge:  $1/2500$ .

No.	Description	Length ...	6	12 inches
3539/1	Flexible Steel, not bevelled, $1\frac{1}{8}$ in. $\times$ .02 in. thick	...	5/6	9/- each

## Rustless Mechanical or Architectural Scales

No. 3536R



No.	Description	Length ...	6	12 inches
3536R	Flexible Steel, not bevelled (see illustration), Armstrong Pattern, open divisions, $\frac{1}{8}$ , $\frac{1}{4}$ , $\frac{3}{8}$ , $\frac{1}{2}$ , $1$ , $1\frac{1}{2}$ , and 3 in.	...	3/9	5/6 each

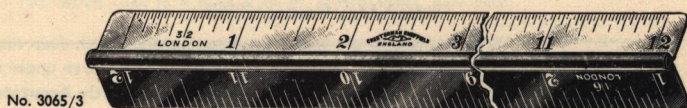




# Rustless Steel Scales (Triangular)

## For Engineers, Draughtsmen, Etc.

These are made of Rustless Steel and are very light and strong, weighing only  $1\frac{1}{2}$  oz.



No. 3065/3

No.	Description	Price each
3065	Armstrong Pattern Scales, one edge $\frac{1}{2}$ " and 1", other edge $1\frac{1}{2}$ " and 3" to foot ...	11/-
3065/1	Armstrong Pattern Scales, one edge $\frac{1}{8}$ " and $\frac{1}{4}$ ", other edge $\frac{3}{8}$ " and $\frac{3}{4}$ " to foot ...	11/-
3065/2	Inches into 64ths one edge, 100ths other edge ... ..	14/6
3065/3	Inches into 16ths one edge, 32nds other edge (see illustration) ... ..	11/-
3065/4	Inches into 50ths one edge, 32nds other edge ... ..	11/-
3065/5	Inches into 32nds one edge, 64ths other edge ... ..	11/-
3065/6	Inches into 40ths one edge, 32nds other edge ... ..	11/-
3065/7	Inches into 32nds one edge, millimetres and halves other edge ... ..	11/-
3065/8	Inches into 16ths, 32nds, 64ths one edge, millimetres and halves other edge ...	11/-
3065/9	Millimetres one edge, half millimetres other edge ... ..	11/-
3065/10	Decimal scales 20 and 40 ... ..	11/-



# Bench, Plate and Counter Rules

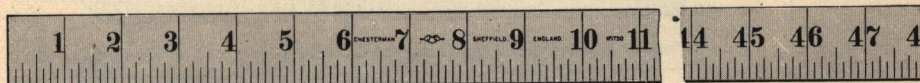
63

Marked with name and trade mark



## Steel Bench Rules

This is a strong Hardened and Tempered Steel Rule, and will be found very useful in the yard or workshop where a more highly finished article would be unnecessary.



No. 1750.  $1\frac{1}{4}$  in. wide  $\times$   $\frac{1}{8}$  in. thick, divided into inches and 8ths or 16ths.

No.		Length ...	12	24	36	48	60	72 inches
1750	Marked on one side into inches and 8ths ...	...	10/-	19/-	30/-	39/6	48/6	54/- each
	Marked on both sides into inches and 8ths ...	...	15/-	30/-	46/-	59/6	67/6	75/6 ..
	Marked on one side into inches and 16ths ...	...	12/-	23/-	36/6	48/6	59/6	67/6 ..
	Marked on both sides into inches and 16ths ...	...	17/6	34/-	52/6	60/-	86/6	100/- ..

No. 1751. Steel,  $1\frac{1}{8}$  in. wide  $\times$   $\frac{1}{8}$  in. thick—divisions and prices as No. 1750.

## Steel Plate Rules

This Rule is specially designed for measuring hot plates in rolling mills. Beginning end is fitted with a stop  $\frac{1}{2}$  in. deep by  $\frac{1}{2}$  in. thick. The other end is shaped in the form of a handle. **Made of Best Hardened and Tempered Steel,  $1\frac{1}{4}$  in. wide  $\times$   $\frac{1}{8}$  in. thick.**



No. 658

No.		Length ...	36	42	48	60	72 inches
658	Marked on one side into inches and 16ths ...	...	74/6	81/-	86/6	97/-	106/- each

## Brass Counter Rules (Government stamped)



No. 76/1

$36$  in.  $\times$   $\frac{3}{4}$  in.  $\times$   $\frac{1}{32}$  in. with countersunk holes for screwing to counter.

No. 76/1	Marked in inches and 8ths ...	12/- each
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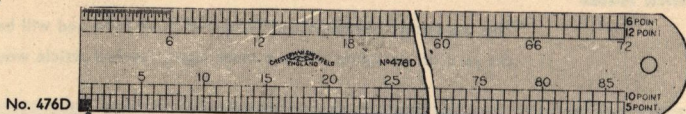




Marked with name and trade mark

# Machine-Divided Steel Type Rules

**For measuring up type matter either  
in forme or copy**



Made of Best Hardened and Tempered Steel. 12 in. long  $\times$   $1\frac{1}{8}$  in. wide  $\times$  .04 in. thick.

No.	Description	Price
476D	Machine-divided one side, one edge 8 point ems, and other edge standard inches and 16ths. Reverse side, one edge 6 and 12 point ems, and other edge 5 and 10 point ems	54/- doz.
477D	Machine-divided one side, one edge 11 point ems, and other edge standard inches and 16ths. Reverse side, one edge 6 and 12 point ems, and other edge 5 and 10 point ems	54/- ..

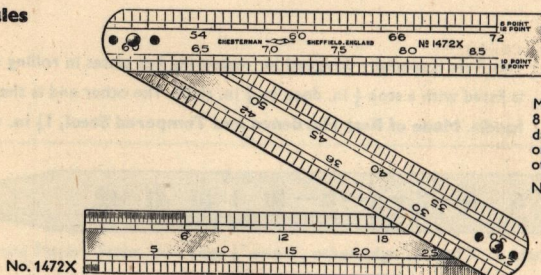
## Continental Pattern Type Rule

30 cms. long  $\times$  23.56 mm. wide  $\times$  1 mm. thick. Square both ends.

No. 479 Machine-divided one side, one edge, 6 point Nonpareil and 12 point Cicero, and other edge standard millimetres. Reverse side one edge 8 point Petit, and other edge 10 point Corpus.

63/- doz.

## Pocket Steel Rules



Machine-divided one side, one edge 8 point ems, and other edge standard inches and 16ths. Reverse side, one edge 6 and 12 point ems, and other edge 5 and 10 point ems.

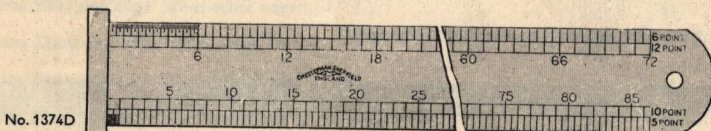
No. 1472X ... .. 75/- doz.

No. 1472X

These Rules are made in a handy and convenient form to fit the waistcoat pocket. They are light and flexible, and are highly finished.

12 in. long  $\times$   $\frac{1}{8}$  in. wide  $\times$  .02 in. thick, and folds into three.

## Straight Pattern with Hook



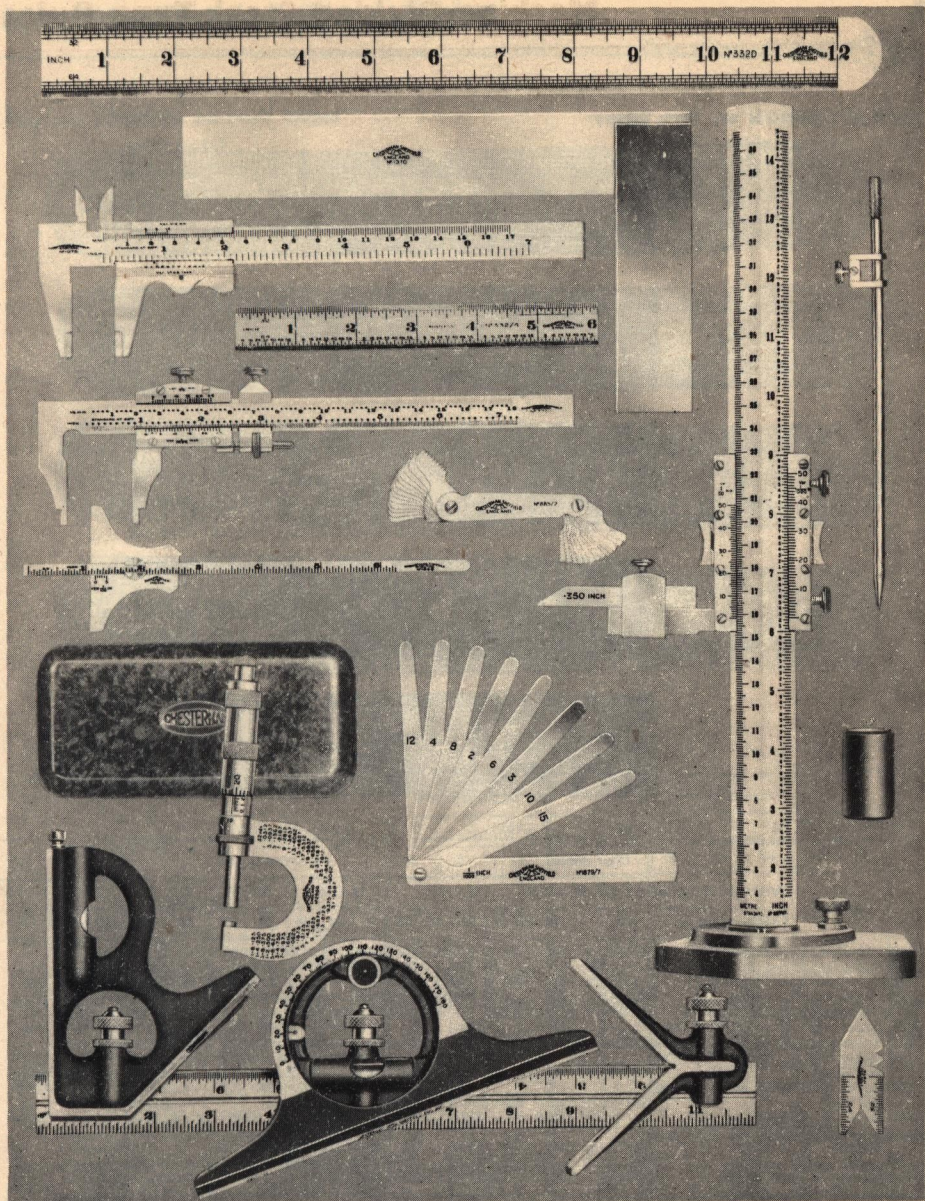
No. 1374D

This Rule is specially designed with a hook at the beginning which fits square to the measuring edge. 12 in. long  $\times$   $1\frac{1}{8}$  in. wide  $\times$  .04 in. thick.

No. 1374D Machine-divided one side, one edge 8 point ems, and other edge standard inches and 16ths. Reverse side, one edge 6 and 12 point ems, and other edge 5 and 10 point ems.

90/- doz.





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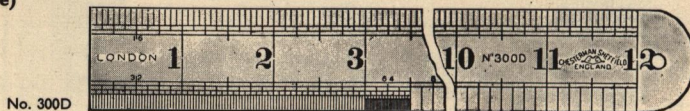




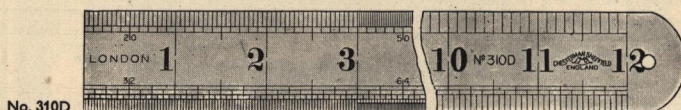
## Machine-Divided Steel Rules

## Marked LONDON on Two Edges

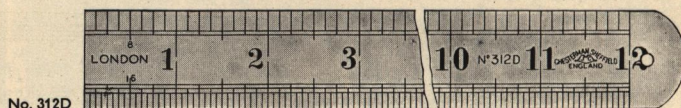
(one side)



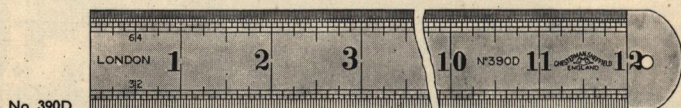
No. 300D



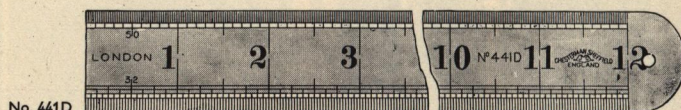
No. 310D



No. 312D



No. 390D



No. 441D

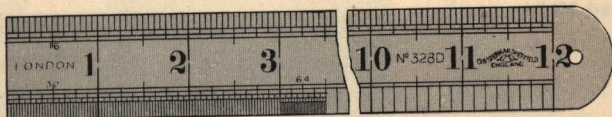
No.	MARKED	Width and thickness Length in inches	Per dozen			Price each											
			$\frac{3}{4} \times .03"$			$1\frac{1}{8} \times .04"$											
			4	6	12	$1\frac{1}{2} \times .06"$			$1\frac{1}{2} \times .07"$			$2 \times .09"$			$2\frac{1}{2} \times .10"$		
304D	Inches into 10 and 16ths	...	13/6	15/6	27/-	4/6	8/6	12/-	13/6	25/6	34/6	49/-	59/6	153/-	180/-	198/-	360/-
372D	Inches into 20 and 16ths	...	15/6	18/-	27/-	4/6	8/6	12/-	13/6	25/6	34/6	49/-	59/6	153/-	180/-	198/-	360/-
312D	Inches into 8 and 16ths	...	13/6	15/6	27/-	4/6	8/6	12/-	13/6	25/6	34/6	49/-	59/6	135/-	153/-	180/-	360/-
370D	Inches into 10 and 20ths	...	13/6	15/6	27/-	4/6	8/6	12/-	13/6	25/6	34/6	49/-	59/6	135/-	153/-	180/-	360/-
300D	Inches into 8, 16, 32, and 64ths	...	15/6	18/-	32/6	5/6	9/-	13/6	16/6	29/6	38/-	54/-	65/-	153/-	171/-	216/-	378/-
301D	Inches into 8, 32, 64, 12, 24, & 48ths	...	15/6	18/-	32/6	5/6	9/-	13/6	16/6	29/6	38/-	54/-	65/-	153/-	171/-	216/-	378/-
308D	Inches into 8, 32, 64, 10, 20, & 50ths	...	15/6	18/-	32/6	5/6	9/-	13/6	16/6	29/6	38/-	54/-	65/-	153/-	171/-	216/-	378/-
310D	Inches into 16, 32, 64, 10, 20, 50, and 100ths	...	20/-	22/6	36/6	7/6	11/-	18/-	31/-	41/6	59/6	72/-	84/-	108/-	126/-	152/-	396/-
314D	Inches into 16, 32, 64, 12, 24, 48, and 96ths	...	20/-	22/6	36/6	7/6	11/-	18/-	31/-	41/6	59/6	72/-	84/-	108/-	126/-	152/-	396/-
388D	Inches into 40 and 32nds	...	20/-	22/6	40/6	7/6	11/-	18/-	31/-	41/6	59/6	72/-	84/-	108/-	126/-	152/-	396/-
389D	Inches into 10, 20, 30, 40, 50, and 100ths	...	20/-	22/6	36/6	7/6	11/-	18/-	31/-	41/6	59/6	72/-	84/-	108/-	126/-	152/-	396/-
390D	Inches into 32 and 64ths	...	20/-	22/6	40/6	7/6	11/-	18/-	31/-	41/6	59/6	72/-	84/-	108/-	126/-	152/-	396/-
391D	Inches into 16 and 32nds	...	15/6	18/-	36/-	7/6	11/-	18/-	31/-	41/6	59/6	72/-	84/-	108/-	126/-	152/-	396/-
392D	Inches into 64 and 100ths	...	27/-	43/6	65/-	14/6	20/6	38/-	63/-	90/-	135/-	162/-	189/-	225/-	270/-	315/-	378/-
441D	Inches into 50 and 32nds	...	20/-	22/6	40/6	7/6	11/-	18/-	31/-	41/6	59/6	72/-	84/-	108/-	126/-	152/-	396/-
313D	Inches into 8, 16, 32, and 64ths (one edge only)	...	13/6	15/6	27/-	4/6	7/6	9/-	11/-	21/-	31/-	43/6	54/-	65/-	76/-	87/-	98/-



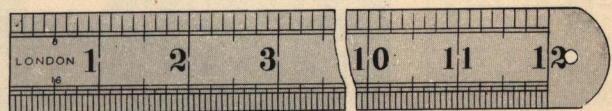


## Marked LONDON on Four Edges (both sides)

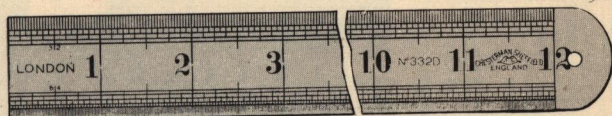
No. 328D. One side.



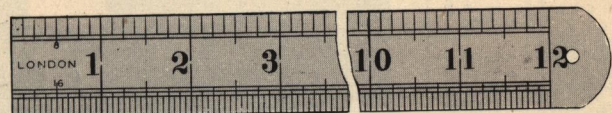
No. 328D. Reverse side.



No. 332D. One side.



No. 332D. Reverse side.



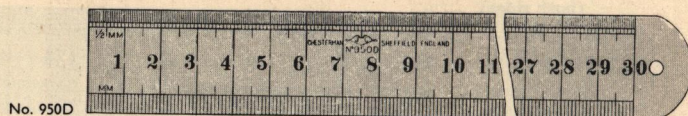
No.	MARKED	Width and thickness Length in inches	Price per dozen			Price each							
						1 1/2 x .06"				1 1/2 x .07"		2 x .09"	
			3/4 x .03"	1 1/8 x .04"		18	24	30	36	36	48	60	72
325D	Inches into 12ths and 16ths one side; 10ths and 8ths other side	...	20/-	22/6	40/6	—	13/6	—	—	41/6	54/-	90/-	—
326D	Inches into 12, 24, 48ths and 8, 32, 64ths one side; 10, 20, 50ths and 16ths other side	...	22/6	27/-	45/-	—	13/6	—	22/6	43/6	63/-	—	—
327D	Inches into 12, 24, 48, 96ths and 16, 32, 64ths one side; 10, 20, 50, 100ths and 16ths other side	...	27/-	31/6	50/6	—	18/-	—	27/-	50/6	68/6	101/-	117/-
328D	Inches into 16ths and 8, 32, 64ths one side; 8ths and 16ths other side	...	22/6	27/-	40/6	10/-	13/6	—	22/6	41/6	54/-	90/-	108/-
330D	Inches into 16ths and 8, 32, 64ths one side; 8, 10, 15ths and 20, 30, 40ths other side	...	—	—	50/6	—	—	—	—	—	—	—	—
332D	Inches into 8ths and 16ths one side; 32nds and 64ths other side	...	22/6	27/-	45/-	10/-	14/6	—	25/6	45/-	65/-	101/-	126/-
371D	Inches into 20ths and 40ths one side; 50ths and 32nds other side	...	27/-	31/6	58/-	—	19/-	—	31/-	—	—	—	—
403D	Inches into 10, 20, 50, 100ths and 16, 32, 64ths one side; 16, 32, 64ths and 10, 20, 50, 100ths other side	...	31/6	33/6	54/-	—	14/6	—	—	41/6	65/-	94/-	113/6
408D	Inches into 16ths and 8, 32, 64ths one side; 20ths and 40ths other side	...	27/-	31/6	50/6	—	—	—	—	—	—	—	—
435D	Inches into 16ths and 32nds one side; 32nds and 16ths other side	...	27/-	31/6	50/6	—	—	—	—	—	—	—	—
755D	Inches into 32nds and 64ths numbered 8, 16, 24, etc., one side; 8ths and 16ths other side	...	27/-	36/-	54/-	—	17/6	—	—	—	—	—	—



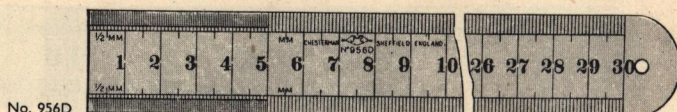


# Machine-Divided Steel Rules

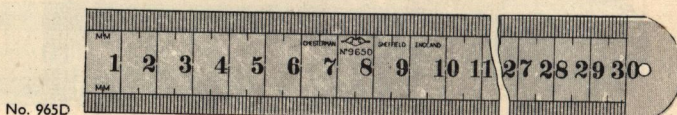
## Marked Metre



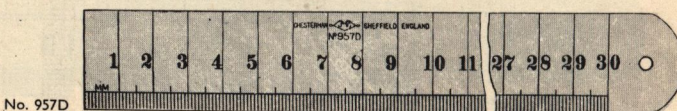
No. 950D



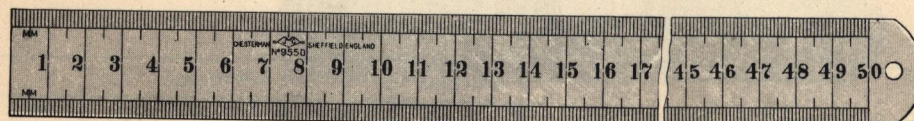
No. 956D



No. 965D



No. 957D



No. 955D

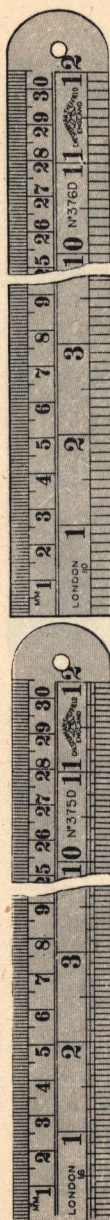
MARKED	No.	Width and thickness Length in centimetres			Price per dozen			Price each						
					$\frac{3}{8} \times .03''$	$1\frac{1}{8} \times .04''$		$1\frac{1}{8} \times .06''$	$1\frac{1}{2} \times .07''$	$2 \times .09''$	$3 \times \frac{1}{8}''$			
		10	15	30	50	75	100	100	150	200	300			
<b>METRE ON ONE EDGE (one side)</b>	957D	Centimetres	into	milli- metres ...	15/6	18/-	27/-	6/6	12/-	16/6	26/6	49/-	59/6	—
<b>METRE ON TWO EDGES (one side)</b>	955D	Centimetres	into	milli- metres ...	18/-	20/-	31/-	7/6	14/6	21/-	31/6	59/6	79/6	270/-
	956D	Centimetres	into	milli- metres (5 cm. into half mm.)	20/-	22/6	36/-	8/6	17/6	24/6	34/6	63/-	86/6	—
	950D	Centimetres	into	milli- metres and halves ...	22/6	24/6	40/6	9/-	19/-	27/-	38/-	67/6	94/-	324/-
<b>METRE ON FOUR EDGES (both sides)</b>	965D	Centimetres	into	milli- metres ...	30/-	33/6	50/6	12/-	—	38/-	54/-	94/-	135/-	—
	966D	Centimetres	into	milli- metres and halves ...	31/6	36/-	54/-	13/6	—	41/6	58/-	99/-	144/-	—



# Machine-divided Steel Rules

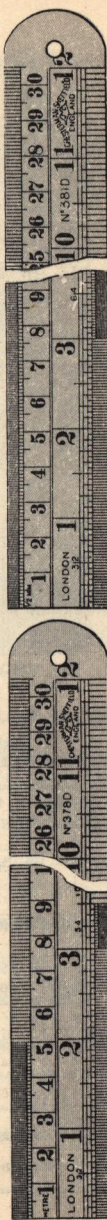
69

Marked with name and trade mark



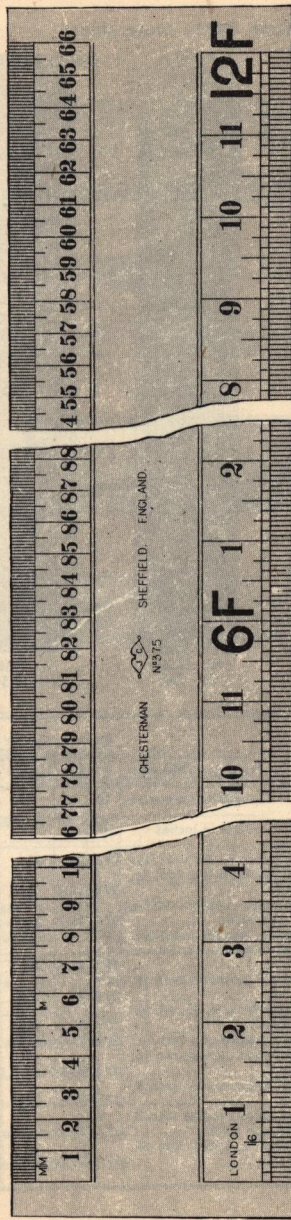
No. 375D.

No. 376D.



No. 378D.

No. 381D.



No.	Marked LONDON and METRE on Two Edges (one side)		Width and thickness		$\frac{3}{16} \times .03$		$1\frac{1}{8} \times .04$		$1\frac{1}{8} \times .06$		$1\frac{1}{2} \times .07$		$2 \times .09$		$2\frac{1}{2} \times .10$		$3 \times \frac{1}{8}$	
	Centimetres into millimetres, and inches into 16ths	Length in centimetres	Length in inches	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
375D	" " " " " "	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
376D	" " " " " "	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
377D	" " " " " "	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
378D	" " " " " "	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
379D	" " " " " "	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
380D	" " " " " "	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
381D	" " " " " "	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
382D	" " " " " "	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
383D	" " " " " "	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
384D	" " " " " "	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...

JAMES CHESTERMAN &amp; CO. LTD., SHEFFIELD 11, ENGLAND



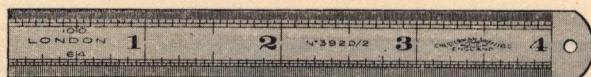


# Machine-divided Steel Rules

## Narrow and Flexible

These are a few of our leading patterns

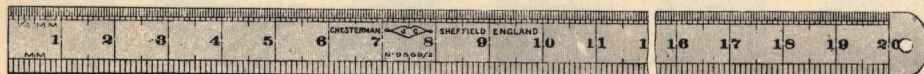
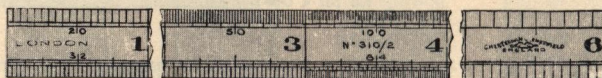
No. 392D/2



No. 390/2



No. 310/2



No. 950D/2

MARKED		Width and thickness	Price per dozen $\frac{1}{2} \times .012''$			Price each $\frac{1}{2} \times .015''$					Price per dozen $\frac{1}{2} \times .020''$			
			Length in centimetres	10	15	30	—	50	—	75	—	100	10	15
No.		Length in inches	4	6	12	18	—	24	30	36	—	4	6	12
	<b>LONDON on Two Edges (one side)</b>													
300D 2	Inches into 8, 16, 32, and 64ths ...	15/6	18/-	32/6	5/6	—	—	—	—	—	—	—	—	—
308D 2	Inches into 8, 32, 64, 10, 20, and 50ths ...	15/6	18/-	32/6	—	—	—	—	—	—	—	—	—	—
310D 2	Ins. into 16, 32, 64, 10, 20, 50, & 100ths ...	20/-	22/6	36/-	7/6	—	11/-	—	—	—	—	—	—	—
312D 2	Inches into 8 and 16ths ...	13/6	15/6	27/-	—	—	—	—	—	—	—	—	—	—
390D 2	Inches into 32 and 64ths ...	20/-	22/6	40/6	—	—	14/6	—	—	—	—	—	—	—
392D 2	Inches into 64 and 100ths ...	27/-	43/6	65/-	—	—	—	—	—	—	—	—	—	—
	<b>LONDON and METRE on Two Edges (one side)</b>													
375D 2	Centimetres into millimetres, and inches into 16ths ...	15/6	20/-	36/-	—	9/-	—	—	—	21/-	—	—	—	—
376D 2	Centimetres into millimetres, and inches into 10ths ...	15/6	20/-	—	—	—	10/-	—	—	—	—	—	—	—
378D 2	Centimetres into millimetres and halves, inches into 16, 32, and 64ths ...	18/-	22/6	40/6	—	9/-	11/-	—	—	—	—	—	—	—
381D 2	Centimetres into millimetres and halves, inches into 16, 32, and 64ths ...	22/6	27/-	45/-	—	—	—	—	—	23/6	—	—	—	—
	<b>METRE on One Edge (one side)</b>													
957D 2	Centimetres into millimetres ...	—	—	27/-	—	6/6	—	12/-	—	16/6	—	—	—	—
	<b>METRE on Two Edges (one side)</b>													
950D 2	Centimetres into millimetres and halves	22/6	24/6	40/6	—	9/-	—	19/-	—	27/-	—	—	—	—
952D 2	Centimetres into millimetres and halves	22/6	24/6	40/6	—	9/-	—	19/-	—	27/-	—	—	—	—
955D 2	Centimetres into millimetres ...	18/-	20/-	31/-	—	7/6	—	14/6	—	21/-	—	—	—	—
	<b>LONDON Four Edges (both sides)</b>													
328D 3	Inches into 8, 16, 32, and 64ths ...	—	—	—	—	—	—	—	—	—	—	22/6	27/-	40/6
332D 3	Inches into 8, 16, 32, and 64ths ...	—	—	—	—	—	—	—	—	—	—	22/6	27/-	45/-
403D 3	Ins. into 16, 32, 64, 10, 20, 50, & 100ths	—	—	—	—	—	—	—	—	—	—	31/6	33/6	54/-
	<b>LONDON and METRE on Four Edges (both sides)</b>													
412D 3	Centimetres into millimetres and halves, inches into 16, 32, 64, 10, 20, 50, 100, 12, 24, 48, 96ths ...	—	—	—	—	—	—	—	—	—	—	27/-	31/6	54/-
417D 3	Centimetres into millimetres and halves, ins. into 8, 16, 32, 64, 10, 20, 50, & 100ths	—	—	—	—	—	—	—	—	—	—	27/-	31/6	54/-
1356D 3	Centimetres into millimetres, and inches into 16, 32, 64, 12, 24, 48, 96, 10, 20, 40, 50, and 100ths ...	—	—	—	—	—	—	—	—	—	—	27/-	31/6	54/-
1561D 3	Centimetres into millimetres and halves, inches into 16, 32, 64, 10, 20, 50, & 100ths	—	—	—	—	—	—	—	—	—	—	27/-	31/6	54/-

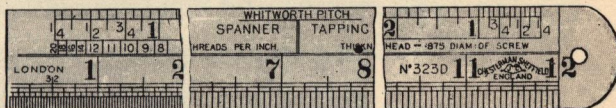




No. 321D, 6 in.



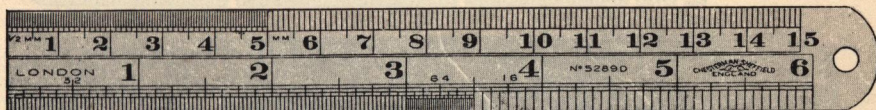
No. 323D, 12 in. One side



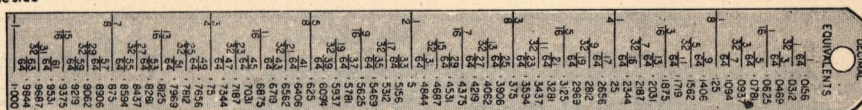
No. 323D, 12 in. Reverse side



No. 5289, One side (full size)



Reverse side



## MARKED WHITWORTH'S SPANNER AND TAPPING SIZES

No.	MARKED	Width and thickness Length in inches	$\frac{3}{4} \times .03"$		$1\frac{1}{8} \times .04"$
			4	6	12
321D	Inches into 16, 32, 64ths, Spanner and Tapping sizes one side	20/-	22/6	36/- doz.	
322D	Inches into 16, 10, 20, 50, 100ths one side; 16, 32, 64ths, Spanner and Tapping sizes other side	27/-	31/6	50/6	"
323D	Inches into 8, 16ths one side; 16, 32, 64ths, Spanner and Tapping sizes other side	—	31/6	45/-	"
324D	Inches into 8, 16, 32, 64ths one side; Spanner and Tapping sizes other side	27/-	31/6	—	"
622D	Inches into 10, 12, 20ths one side; 16, 32, 64ths, Spanner and Tapping sizes other side	27/-	31/6	45/-	"
1360D	Inches into 16, 32, 64ths, millimetres and halves one side; Spanner and Tapping sizes other side	27/-	31/6	—	"
1361D	Inches into 16, 32, 64ths, millimetres and halves one side; 10, 20, 40, 50, 100ths, Spanner and Tapping sizes other side	—	—	54/-	"

## MARKED LONDON AND METRE ON ONE SIDE; DECIMAL EQUIVALENTS OTHER SIDE

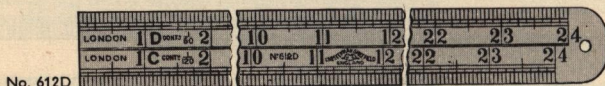
No.	MARKED	Width and thickness Length in centimetres Length in inches	$\frac{3}{4} \times .03"$	
			15	6
5289D	Centimetres into millimetres and halves, inches into 16, 32, 64ths, and decimal equivalents	32/6 doz.		



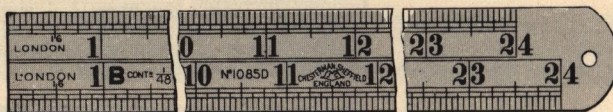


# Steel Contraction or Shrink Rules

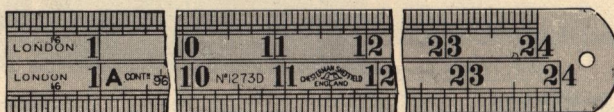
## Marked LONDON on Two Edges (one side)



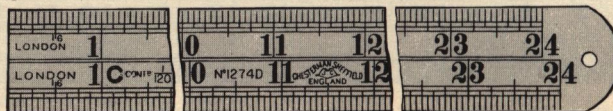
No. 612D



No. 1085D



No. 1273D



No. 1274D

No.	MARKING	Width and thickness		Length in inches		
				12	24	36
				Per doz.	each	each
612D	Inches into 16ths, Contraction D (1/60), top edge; inches into 16ths, Contraction C (1/120), bottom edge			43/6	11/-	—
615D	Inches into 16ths, Contraction C (1/120), top edge; inches into 16ths, Contraction C (1/120), bottom edge			43/6	11/-	—
1270D	Inches into 16ths, Contraction A (1/96), top edge; inches into 16ths, Contraction B (1/48), bottom edge			43/6	11/-	21/6
1271D	Inches into 16ths, Contraction A (1/96), top edge; inches into 16ths, Contraction A (1/96), bottom edge			43/6	11/-	—
1273D	Inches into 16ths, Standard Measurement, top edge; inches into 16ths, Contraction A (1/96), bottom edge			43/6	11/-	—
1274D	Inches into 16ths, Standard Measurement, top edge; inches into 16ths, Contraction C (1/120), bottom edge			43/6	11/-	21/6
1275D	Inches into 16ths, Contraction C (1/120), top edge; inches into 16ths, Contraction D (1/60), bottom edge			43/6	11/-	—
1052D	Inches into 16ths, Standard Measurement, top edge; inches into 16ths, Contraction K (1/64), bottom edge			43/6	11/-	21/6
1083D	Inches into 10ths, Contraction D (1/60), top edge; inches into 10ths, Contraction C (1/120), bottom edge			43/6	11/-	—
1084D	Inches into 16ths, Standard Measurement, top edge; inches into 16ths, Contraction D (1/60), bottom edge			43/6	11/-	21/6
1085D	Inches into 16ths, Standard Measurement, top edge; inches into 16ths, Contraction B (1/48), bottom edge			43/6	11/-	21/6
1086D	Inches into 16ths, Contraction J (1/30), top edge; inches into 16ths, Contraction N (1/40), bottom edge			43/6	11/-	—
1087D	Inches into 16ths, Contraction K (1/64), top edge; inches into 16ths, Contraction P (1/32), bottom edge			43/6	11/-	21/6
1088D	Inches into 16ths, Contraction A (1/96), top edge; inches into 16ths, Contraction K (1/64), bottom edge			43/6	11/-	—
1089D	Inches into 16ths, Contraction C (1/120), top edge; inches into 16ths, Contraction K (1/64), bottom edge			43/6	11/-	21/6
1833D	Inches into 10ths, Contraction M (1/77), top edge; inches into 20ths, Contraction M (1/77), bottom edge			43/6	11/-	—



# Steel Contraction or Shrink Rules

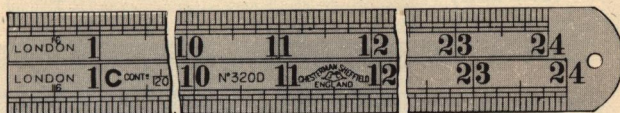
75

Marked with name and trade mark

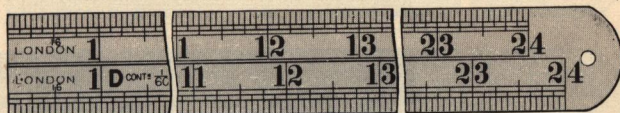


Marked **LONDON** on Four Edges  
(both sides)

No. 320D. One side



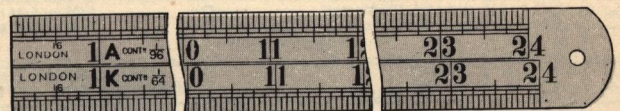
No. 320D. Reverse side



No. 618D. One side



No. 618D. Reverse side



No.	MARKING	Width and thickness...	$1\frac{1}{8} \times .04$		$1\frac{1}{8} \times .06$		$1\frac{1}{2} \times .07$ in.
		Length in inches ...	12	24	36	36	
320D	Inches into 16ths Standard, and inches into 16ths, Contraction C ( $1/120$ ), one side; inches into 16ths Standard, and inches into 16ths, Contraction D ( $1/60$ ), other side		54/- doz.	18/-	—	54/- each	
611D	Inches into 16ths, Contraction A ( $1/96$ ), and inches into 16ths, Contraction B ( $1/48$ ), one side; inches into 16ths Standard on both edges, other side		54/- ..	18/-	—	54/- ..	
613D	Inches into 16, 32nds, Contraction C ( $1/120$ ), and inches into 10, 20, 50ths, Contraction C ( $1/120$ ), one side; inches into 12, 24, 48ths, Contraction C ( $1/120$ ), and inches into 8, 32, 64ths, Contraction C ( $1/120$ ), other side		54/- ..	18/-	—	—	..
614D	Inches into 16ths Standard, and inches into 16ths, Contraction C ( $1/120$ ), one side; inches into 16ths Standard, and inches into 16ths, Contraction D ( $1/60$ ), other side		54/- ..	18/-	—	—	..
616D	Inches into 10, 20, 50ths Standard, and inches into 10, 20, 50ths, Contraction C ( $1/120$ ), one side; inches into 16, 32, 64ths Standard, and inches into 10, 20, 50ths, Contraction D ( $1/60$ ), other side		58/6 ..	21/6	—	—	..
618D	Inches into 16ths Standard, and inches into 16ths, Contraction C ( $1/120$ ), one side; inches into 16ths, Contraction A ( $1/96$ ), and inches into 16ths, Contraction K ( $1/64$ ), other side		58/6 ..	18/-	—	54/- ..	
1272D	Inches into 10, 20, 50ths Standard, and inches into 8, 32, 64ths Standard, one side; inches into 16ths, Contraction D ( $1/60$ ), and inches into 16ths Standard, other side		58/6 ..	18/-	—	—	..

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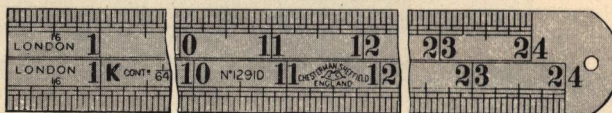




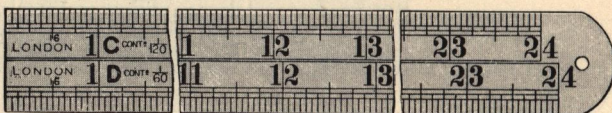
# Steel Contraction or Shrink Rules

## Marked LONDON on Four Edges (both sides)

No. 1291D. One side



No. 1291D. Reverse side



We have adopted the system of using a letter to denote each different degree of contraction, and each measurement is marked with such letter.

This enables the user to remember more easily the required contraction, as he simply remembers the letter instead of the amount of contraction; for instance, K for contraction  $1/64$  or  $3/16$  in. to the ft.

We have also placed opposite the contractions the most usual metal that corresponds to that contraction; but as contractions vary with different mixtures, etc., they must not be taken too literally, and each user must judge for himself.

A = Contraction  $1/96$  (or  $1/4$  in. to the ft.). Cast metal.  
 B = "  $1/48$  (or  $1/2$  in. to the ft.). Double metal.  
 C = "  $1/120$  (or  $1/10$  in. to the ft.). Steel (or iron).  
 D = "  $1/60$  (or  $1/2$  in. to the ft.). Double steel.  
 K = "  $1/64$  (or  $3/16$  in. to the ft.). Brass.

E = Contraction  $1-100$  (one in one hundred).  
 H = "  $1/50$  (one in fifty).  
 M = "  $1/77$  (or  $5/32$  in. to the ft.). Phosphor bronze.  
 O = "  $1/38$  (or  $5/16$  in. to the ft.).  
 P = "  $1/32$  (or  $3/8$  in. to the ft.).

No.	MARKING	Width and thickness... Length in inches ...	$1\frac{1}{2} \times .04$	$1\frac{1}{2} \times .06$		$1\frac{1}{2} \times .07$ in.
			12	24	36	36
1291D	Inches into 16ths Standard, and inches into 16ths, Contraction K ( $1/64$ ), one side; inches into 16ths, Contraction C ( $1/120$ ), and inches into 16ths, Contraction D ( $1/60$ ), other side					
1292D	Inches into 32nds, Contraction C ( $1/120$ ), and inches into 64ths, Contraction C ( $1/120$ ), one side; inches into 8ths, Contraction C ( $1/120$ ), and inches into 16ths, Contraction C ( $1/120$ ), other side	58/6 doz.	18/-	36/-	—	each
1293D	Inches into 16ths Standard, and inches into 8, 32, 64ths Standard, one side; inches into 16ths, Contraction B ( $1/48$ ), and inches into 16ths, Contraction O ( $1/38$ ), other side	58/6 "	21/6	—	—	"
1956D	Inches into 16ths, Contraction P ( $1/32$ ), and inches into 16ths Standard, one side; inches into 16ths, Contraction A ( $1/96$ ), and inches into 16ths, Contraction B ( $1/48$ ), other side	54/- "	18/-	36/-	—	"
1957D	Inches into 16ths Standard, and inches into 16ths, Contraction C ( $1/120$ ), one side; inches into 16ths, Contraction D ( $1/60$ ), and inches into 16ths, Contraction R ( $1/80$ ), other side	58/6 "	18/-	—	54/-	"
1958D	Inches into 16ths, Contraction A ( $1/96$ ), and inches into 16ths, Contraction K ( $1/64$ ), one side; inches into 16ths, Contraction C ( $1/120$ ), and inches into 16ths, Contraction M ( $1/77$ ), other side	58/6 "	18/-	—	—	"
1959D	Inches into 16ths, Contraction A ( $1/96$ ), and inches into 16ths, Contraction B ( $1/48$ ), one side; inches into 16ths, Contraction M ( $1/77$ ), and inches into 16ths, Contraction C ( $1/120$ ), other side	58/6 "	18/-	—	—	"
1960D	Inches into 16ths, Contraction J ( $1/30$ ), and inches into 16th, Contraction N ( $1/40$ ), one side; inches into 16ths, Contraction D ( $1/60$ ), and inches into 16ths, Contraction C ( $1/120$ ), other side	58/6 "	18/-	—	—	"
1961D	Inches into 20ths, Contraction J ( $1/30$ ), and inches into 20ths, Contraction N ( $1/40$ ), one side; inches into 20ths, Contraction M ( $1/77$ ), and inches into 20ths, Contraction F ( $1/90$ ), other side	58/6 "	—	—	—	"
			20/-	—	—	"

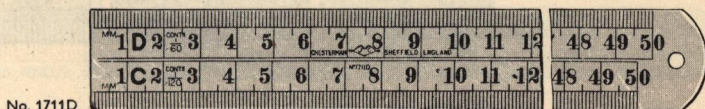




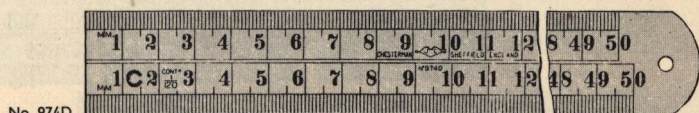
## Marked METRE



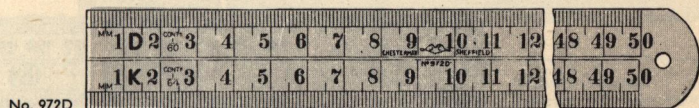
No. 962D



No. 1711D



No. 974D



No. 972D

### METRE on One Edge (one side)

No.	MARKING	Width and thickness ...	$1\frac{1}{2} \times .04$	$1\frac{1}{2} \times .06$ in.		
				50	60	100
959D	Centimetres into millimetres, Contraction E (1/100)	...	32/6 doz.	8/-	9/-	18/- each
961D	" " " " H (1/50)	...	32/6 ..	8/-	9/-	18/- ..

### METRE on Two Edges (one side)

No.	MARKING	Width and thickness ...	$1\frac{1}{2} \times .04$	$1\frac{1}{2} \times .06$ in.		
				50	60	100
958D	Centimetres into millimetres, Contraction E (1/100), on both edges	...	48/- doz.	—	12/6	26/- each
960D	" " " " E (1/100), and Standard millimetres	...	—	—	12/6	—
962D	" " " " E (1/100) and H (1/50)	...	48/- ..	10/9	12/6	26/- ..
964D	" " " " C (1/120), on both edges	...	—	—	12/6	26/- ..
1710D	" " " " D (1/60), on both edges	...	—	—	12/6	—
1711D	" " " " D (1/60) and C (1/120)	...	48/- ..	10/9	12/6	26/- ..
1712D	" " " " T (1/66), on both edges	...	48/- ..	10/9	12/6	26/- ..

### METRE on Four Edges (both sides)

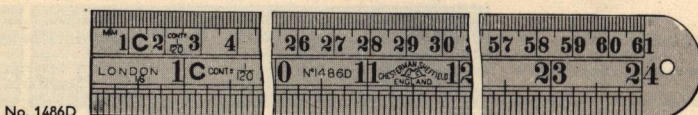
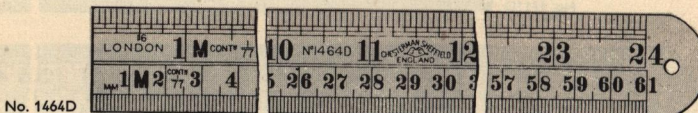
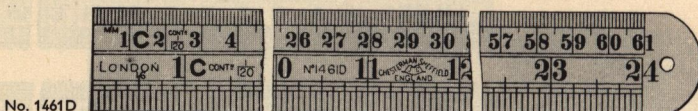
No.	MARKING	Width and thickness ...	$1\frac{1}{2} \times .04$	$1\frac{1}{2} \times .06$ in.		
				50	60	100
971D	Centimetres into millimetres, Contraction C (1/120), D (1/60), N (1/40), J (1/30)	...	76/- doz.	20/-	21/6	— each
972D	" " " " C (1/120), D (1/60), K (1/64), and Standard millimetres	...	76/- ..	20/-	—	— ..
974D	" " " " C (1/120), A (1/96), K (1/64), and Standard millimetres	...	76/- ..	20/-	—	37/- ..
1713D	" " " " D (1/60), C (1/120), M (1/77), and Standard millimetres	...	76/- ..	20/-	21/6	— ..





# Steel Contraction or Shrink Rules

## Marked LONDON and METRE



No.	MARKING	Width and thickness ...	$1\frac{1}{8} \times .04$		$1\frac{1}{8} \times .06$		$1\frac{1}{8} \times .07$ in.	
		Length in centimetres ...	30	50	60	100	100	
		Length in inches ...	12		24			
<b>LONDON and METRE on Two Edges (one side)</b>								
1320D	Centimetres into millimetres, Contraction E (1/100), top edge; inches into 16ths, Contraction A (1/96), bottom edge ...	45/- doz.	10/-	10/9	26/-	47/- each		
1324D	Centimetres into millimetres, Contraction H (1/50), top edge; inches into 16ths, Contraction B (1/48), bottom edge ...	45/- "	—	10/9	26/-	—	"	
1460D	Inches into 16ths, Contraction C (1/120), top edge; centimetres into millimetres, Contraction C (1/120), bottom edge ...	45/- "	—	10/9	26/-	—	"	
1461D	Centimetres into millimetres, Contraction C (1/120), top edge; inches into 16ths, Contraction C (1/120), bottom edge ...	45/- "	—	10/9	26/-	—	"	
1462D	Inches into 16ths, Contraction K (1/64), top edge; centimetres into millimetres, Contraction K (1/64), bottom edge ...	45/- "	—	10/9	26/-	—	"	
1463D	Inches into 16ths, Contraction D (1/60), top edge; centimetres into millimetres, Contraction D (1/60), bottom edge ...	45/- "	—	10/9	26/-	47/-	"	
1464D	Inches into 16ths, Contraction M (1/77), top edge; centimetres into millimetres, Contraction M (1/77), bottom edge ...	45/- "	—	10/9	26/-	—	"	
1458D	Inches into 16ths, Contraction O (1/38), top edge; centimetres into millimetres, Contraction O (1/38), bottom edge ...	45/- "	—	10/9	26/-	—	"	
<b>LONDON and METRE on Four Edges (both sides)</b>								
1359D	Centimetres into millimetres, Contraction E (1/100), and inches into 16ths, Contraction A (1/96), one side; inches into 16ths, Contraction B (1/48), and centimetres into millimetres, Contraction H (1/50), other side ...	65/- "	—	21/6	—	—	"	
1485D	Centimetres into millimetres, Contraction E (1/100), and inches into 16ths, Contraction D (1/60), one side; inches into 16ths, Standard, and inches into 16ths, Contraction C (1/120), other side ...	65/- "	—	21/6	—	—	"	
1486D	Centimetres into millimetres, Contraction C (1/120), and inches into 16ths, Contraction C (1/120), one side; centimetres into millimetres, Contraction D (1/60), and inches into 16ths, Contraction D (1/60), other side ...	65/- "	18/-	21/6	37/-	—	"	



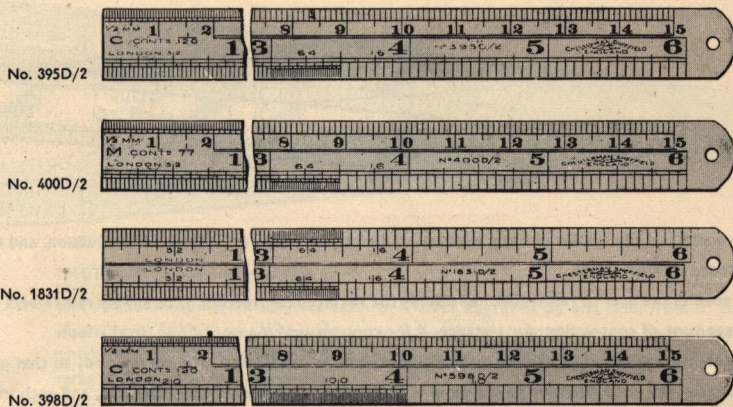
# Steel Contraction or Shrink Rules

79

Marked with name and trade mark



## Narrow and Flexible



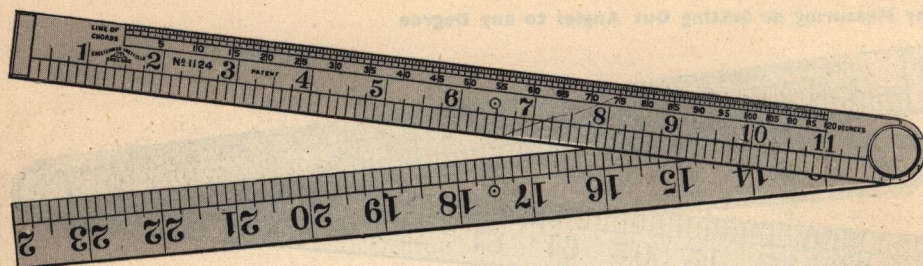
	No.	MARKING	Width and thickness	
			Length in centimetres	15
			Length in inches	6
<b>LONDON ON TWO EDGES</b> (one side)	1084D/2	Inches into 16ths, Contraction D=1/60 and Standard	...	Price per dozen
	1831D/2	Inches into 16, 32, 64ths, Contraction C=1/120, D=1/60	...	22/6
<b>LONDON AND METRE ON TWO EDGES</b> (one side)	395D/2	Inches into 16, 32, 64ths, Contraction C=1/120, centimetres into millimetres and halves, Contraction D=1/60	...	22/6
	396D/2	Inches into 16, 32, 64ths, Contraction D=1/60, centimetres into millimetres and halves, Contraction D=1/60	...	22/6
	400D/2	Inches into 16, 32, 64ths, Contraction M=1/77, centimetres into millimetres and halves, Contraction M=1/77	...	22/6
	401D/2	Inches into 16, 32, 64ths, Contraction A=1/96, centimetres into millimetres and halves, Contraction A=1/96	...	22/6
	402D/2	Inches into 16, 32, 64ths, Contraction B=1/48, centimetres into millimetres and halves, Contraction B=1/48	...	22/6
	425D/2	Inches into 16, 32, 64ths, Contraction J=1/30, centimetres into millimetres and halves, Contraction J=1/30	...	22/6
	426D/2	Inches into 16, 32, 64ths, Contraction O=1/38, centimetres into millimetres and halves, Contraction O=1/38	...	22/6
	398D/2	Inches into 10, 20, 50, 100ths, Contraction C=1/120, centimetres into millimetres and halves, Contraction C=1/120	...	27/-
	399D/2	Inches into 10, 20, 50, 100ths, Contraction D=1/60, centimetres into millimetres and halves, Contraction D=1/60	...	27/-
	No.	MARKING	Width and thickness	
			Length in centimetres	15
			Length in inches	6
<b>LONDON AND METRE ON FOUR EDGES</b> (both sides)	1491D/3	Inches into 16, 32, 64ths, Contraction C=1/120, D=1/60, centimetres into millimetres and halves, Contraction C=1/120, D=1/60	...	Price per dozen
				36/-

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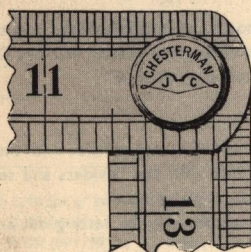
Marked with name and trade mark



One side marked with line of chords for measuring or setting out angles to any degree.  
Machine-divided,  $\frac{7}{8}$  in. wide  $\times$  .04 in., with Stop Joint and Brass ends.

No.	Description	2 feet
1124	Inches on both sides into 8 and 16ths, also line of chords	95/- doz.
1125	Inches on both sides into 8, 16, 32, 64ths, and line of chords	104/- "
1128	Inches on one side into 16ths and line of chords, other side centimetres into millimetres	108/- "

NOTE.—If supplied without Brass ends, the price is 7/- doz. less, and add letter M to the number.



### MACHINE-DIVIDED FOR ENGINEERS

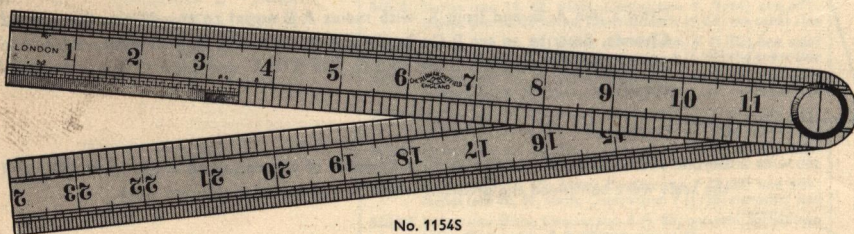
Forming a Rule and Square combined, with one Stop Joint:

1 foot  $\times$   $\frac{7}{8}$  in.  $\times$  .04 in., 2 feet  $\times$   $1\frac{1}{4}$  in.  $\times$  .04 in.

These Rules are made of best hardened and tempered steel, and are made to form a Straight Rule and Square combined, and have a Stop Joint. It is impossible for a Jointed Square to be made absolutely accurate owing to the wear of the joint, and also because dirt and grit are liable to get in and temporarily throw the joint out of truth. For a Jointed Square, however, these Rules are as good as it is possible to make them, and we confidently recommend them to engineers, mechanics, etc., as a very useful tool.

If required without the Square Combination, omit the letter S from the list number, and the price is 20/- per doz. less for one foot and 27/- for 2 feet.

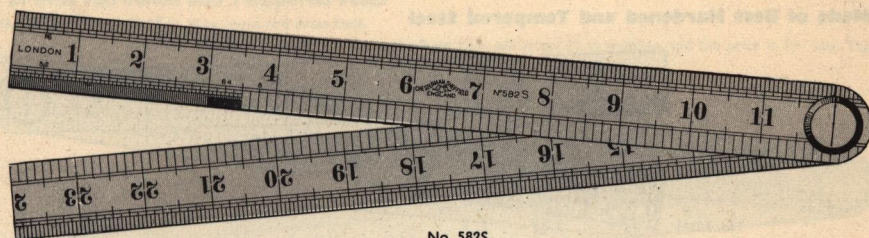
One side marked with line of chords for measuring or setting out angles to any degree.



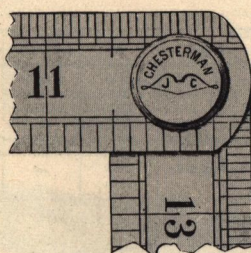
No. 1154S

No.	Description	1	2 feet
1153S	Inches on two edges into 8, 16, 32 and 64ths, also line of chords	131/-	177/- doz.
1154S	Inches on four edges into 8, 16, 32 and 64ths, also line of chords	151/-	203/- "
1158S	Inches on three edges into 16, 32, 64, 10, 20, 50, 100, 3, 5, 7, 9, 11, 13, 15, 17, 19, 21, 23 and 25ths, also Tapping and Spanner sizes; millimetres and halves on other edge, and line of chords	—	243/- "
1159S	Marked on one side into 16, 32 and 64ths on bottom edge, centimetres into millimetres on top edge, other side with line of chords	142/-	196/- "





No. 5825



These Rules are made of best hardened and tempered steel, and are made to form a Straight Rule and Square combined, and have a Stop Joint. It is impossible for a Jointed Square to be made absolutely accurate owing to the wear of the joint, and also because dirt and grit are liable to get in and temporarily throw the joint out of truth. For a Jointed Square, however, these Rules are as good as it is possible to make them, and we confidently recommend them to engineers, mechanics, etc., as a very useful tool.

If required **without** the Square Combination, omit the letter S from the list number, and the price is 20/- per doz. less for one foot and 27/- for 2 feet.

## MACHINE-DIVIDED FOR ENGINEERS

The following numbers are made: 1 ft. x  $\frac{3}{4}$  in. wide x .04 in. thick.

2 ft. x 1  $\frac{1}{4}$  in. wide x .04 in. thick.

With Stop Joint to open out straight or to 90° forming a square.

No.	Description	1	2 feet
580S	Inches on 2 edges into 8 and 16ths...	103/-	142/- doz.
581S	Inches on 2 edges into 8, 16, 32 and 64ths...	113/-	157/- "
582S	Inches on 4 edges into 8, 16, 32 and 64ths...	135/-	184/- "
583S	Inches on 3 edges into 10, 12 and 16ths, and millimetres on 1 edge	142/-	203/- "
584S	Inches on 3 edges into 16, 32, 64, 10, 20, 50, 100, 12, 24, 48 and 96ths, and millimetres and halves on 1 edge	162/-	223/- "
585S	Inches on 1 edge into 16, 32 and 64ths, and millimetres and halves on other edge	122/-	176/- "
586S	Armstrong Pattern Scales, open divisions, $\frac{1}{8}$ , $\frac{1}{4}$ , $\frac{3}{8}$ , $\frac{1}{2}$ , 1, 1 $\frac{1}{2}$ and 3 inches, and inches on 2 edges into 16, 32, 64, 10, 20, 50 and 100ths	—	203/- "
588S	Inches on 1 edge into 8, 32 and 64ths, and Tapping and Spanner sizes on other edge. (For 2 feet see No. 594S)	113/-	—
590S	Inches on 4 edges into 8, 16, 32 and 64ths...	—	184/- "
591S	Inches on 2 edges into 16ths. Contraction 1/96 one edge and standard other	—	162/- "
592S	Inches on 2 edges into 16, 32, 64, 10, 20 and 50ths	115/-	162/- "
593S	Inches on 3 edges into 16, 32, 64, 10, 20, 50, 100, 12, 24, 48, 96, 3, 5, 7, 9, 11, 13, 15, 17, 19, 21, 23 and 25ths, and Tapping and Spanner sizes on 1 edge	—	223/- "
594S	Inches on 1 edge into 8, 32 and 64ths, and Tapping and Spanner sizes on other edge. (For 1 foot, see No. 588S)	—	157/- "
595S	Inches on 3 edges into 16, 32, 64, 10, 20, 40, 50, 100, 3, 5, 7, 9, 11, 13, 15, 17, 19, 21, 23 and 25ths, and Tapping and Spanner sizes; millimetres and halves on other edge	—	223/- "
752S	Inches on 4 edges into 8, 16, 32 and 64ths throughout	—	203/- "
1174S	Marked on 4 edges, 16, 32 and 64ths one side, millimetres other side	—	223/- "

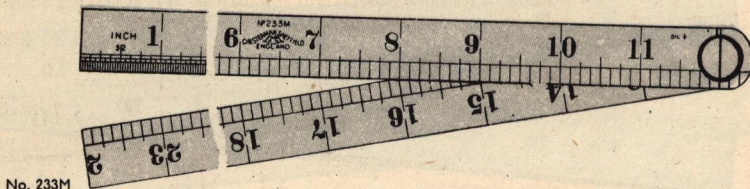




Marked with name and trade mark

# Machine-Divided Jointed Rules

## Made of Best Hardened and Tempered Steel

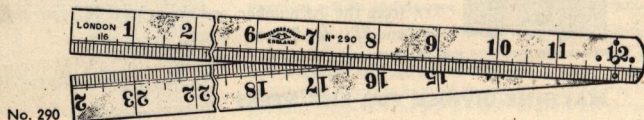


No. 233M

$\frac{3}{4}$  in. wide  $\times$   $\frac{1}{32}$  in., with 12-in. STOP JOINTS and Brass Ends.

NOTE.—If supplied without the Brass ends, the price is 7/- less, and add letter **M** to the number. Thus, 231M would be without Brass ends, and 61/- per doz.

No.	Length ...	2	3 feet	1 metre
231	Inches on both sides into 8ths and 16ths ...	68/-	108/-	— doz.
232	Inches on both sides into 16ths, 10ths and 20ths ...	72/-	—	—
233	Inches on both sides into 8ths, 16ths, 32nds and 64ths ...	72/-	113/-	—
234	Inches into 16ths on one side, and centimetres into millimetres on the other ...	81/-	—	—
235	Inches into 16ths, 32nds and 64ths on one side, and centimetres into millimetres on the other ...	81/-	—	135/-
237	Inches on one side into 16ths, and centimetres into millimetres ...	75/-	—	126/-
238	Inches into 16ths, 32nds and 64ths on bottom side, centimetres into millimetres on top side ...	81/-	—	—
239	Inches on both sides into 16ths, 32nds, 64ths, 10ths, 20ths and 40ths ...	72/-	—	—



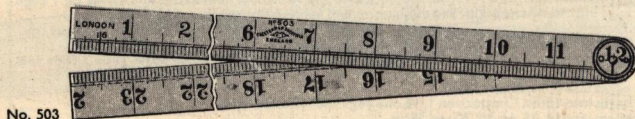
No. 290

$\frac{3}{4}$  in. wide  $\times$   $\frac{1}{32}$  in., with 12-in. LOCK JOINT.

No.	Description	2 feet
290	Inches on both sides into 8ths and 16ths ...	54/- doz.

## Brass Rules

### Made of Best Hard Brass



No. 503

2 ft., with 12-in. STOP JOINTS.

$\frac{3}{4}$  in. wide  $\times$  18 W.G. (.048 in.) thick.

No.	Description	2 feet
503	Machine-divided both sides, inches, 8ths and 16ths ...	54/- doz.
504	Machine-divided both sides, inches into 16ths, centimetres into millimetres ...	54/- doz.



# Machine-Divided Jointed Rules

85

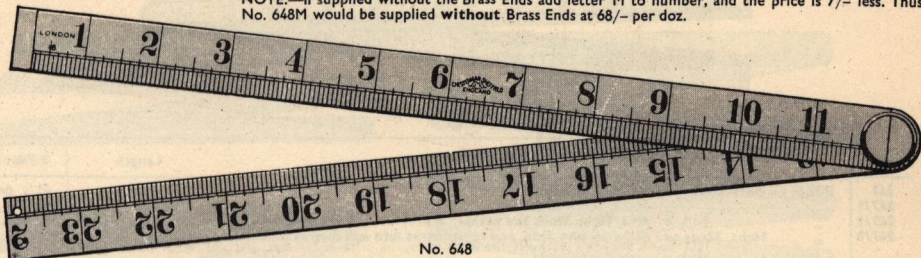
Marked with name and trade mark



## Made of Best Hardened and Tempered Steel

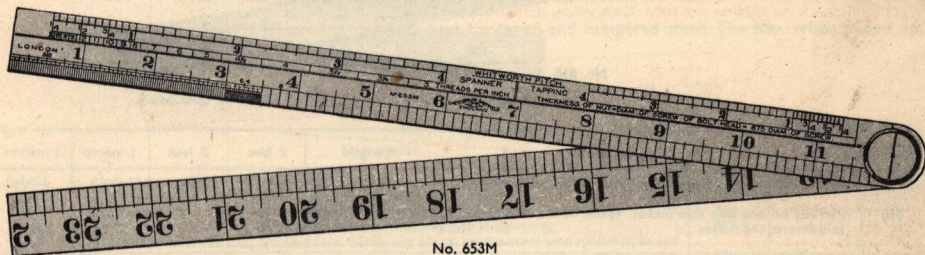
$\frac{7}{8}$  in. wide  $\times$  .04 in. thick, with 12-in. Stop Joints and Brass Ends.

NOTE.—If supplied without the Brass Ends add letter M to number, and the price is 7/- less. Thus No. 648M would be supplied without Brass Ends at 68/- per doz.



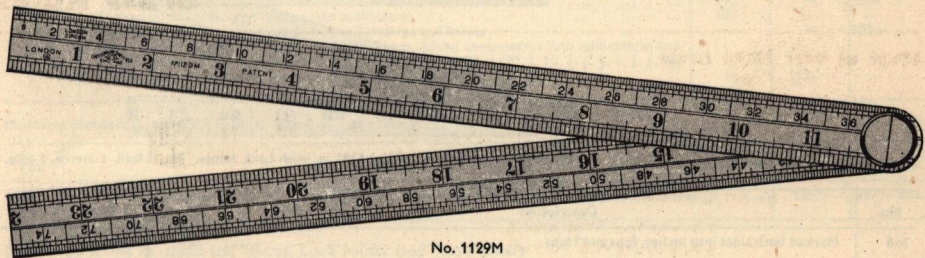
No. 648

No.	Description	Length ...	2	3	4	6 feet
648	Inches on both sides into 8ths and 16ths ... ..	75/-	122/-	203/-	324/- doz.	
649	Inches on both sides into 8ths, 16ths, 32nds and 64ths ... ..	75/-	—	—	— "	
650	Inches on both sides into 10ths and 20ths ... ..	75/-	122/-	—	— "	
651	Inches on one side into 10ths, 20ths, 30ths, 40ths, 50ths and 100ths ... ..	75/-	—	—	— "	
652	Inches on both sides into 32nds and 64ths ... ..	88/-	—	—	— "	
689	Inches into 16ths one side, and centimetres into millimetres on the other ... ..	88/-	—	—	— "	



No. 653M

No.	Description	Length ...	2 feet
653M	Inches on both sides into 8ths, 16ths, 32nds and 64ths, also Spanner and Tapping sizes (without Brass Ends) ... ..	—	81/- doz.



No. 1129M

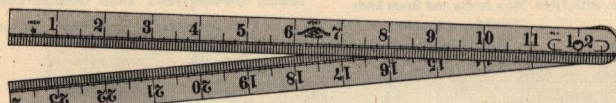
No.	Description	Length ...	2	3 feet
1129M	Inches on both sides into 16ths, and circumference in inches and 8ths one side, and inches into 8ths, also line of chords, other side (without Brass Ends) ... ..	—	106/-	162/- doz.

JAMES CHESTERMAN & CO. LTD., SHEFFIELD 11, ENGLAND





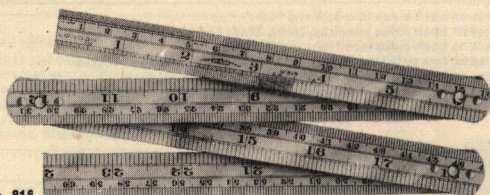
Marked with name and trade mark



No. 247

 $\frac{3}{4}$  in. wide  $\times$  1/32 in. with 12-in. Lock Joint.

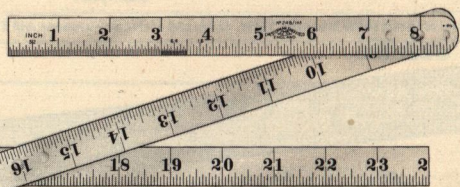
No.	Description	Length ...	2 Feet
247	Inches on both sides into 8ths and 16ths ...	...	61/- doz.
247/1	" " " 16ths, 10ths and 20ths ...	...	65/- "
247/2	" " " 8ths, 16ths 32nds and 64ths ...	...	65/- "
247/3	" 16ths, 32nds and 64ths on one side, and centimetres into millimetres on the other ...	...	74/- "

**Made of Best Hardened and Tempered Steel**

No. 818

Machine divided,  $\frac{3}{4}$  in. wide  $\times$  .03 in., with 6-in. Lock Joints.

No.	Description	Length ...	2 feet	3 feet	1 metre	2 metres
791	Marked on one side into inches, 8ths, 16ths, 32nds, and 64ths ...	...	81/-	122/-	—	— doz.
818	Marked on one side into inches, 16ths, 32nds, and 64ths, and centimetres into millimetres and halves ...	...	95/-	—	135/-	338/- ..

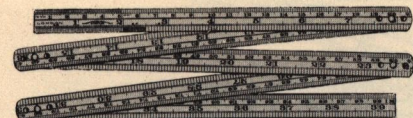


No. 248/1

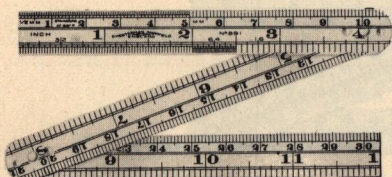
Machine divided,  $\frac{3}{4}$  in. wide  $\times$  1/32 in. with Lock Joints. 2ft., 3 fold. 1 metre, 5 fold.

No.	Description	Length ...	2 feet	3 feet	1 metre
248	Marked both sides into inches, 8ths and 16ths ...	...	72/-	108/-	— doz.
248/1	Marked one side into 8ths, 16ths, 32nds and 64ths ...	...	76/-	—	— "
248/2	Marked on one side into inches, 16ths, 32nds, 64ths, 10ths, 20ths, 50ths and 100ths ...	...	96/-	—	— "
248/3	Marked on one side into centimetres millimetres, inches into 16ths ...	...	84/-	—	120/- ..

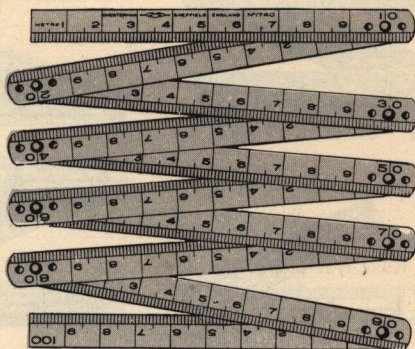




No. 5325



No. 891



No. 1740

These are made of the very best hardened and tempered steel. The size, when folded up, conveniently fits the waistcoat pocket.

$\frac{1}{2}$  in. wide  $\times$  .02 in. thick and 4-in. Lock Joints.

No.	Description	1 ft.	2 ft.	1 metre
835	Marked on one side into inches, 16ths, 32nds and 64ths ... ..	39/-	77/-	— doz.
836	Marked on one side into inches, 20ths, 16ths, 32nds and 64ths ... ..	39/-	—	— "
837	Marked on one side into inches, 8ths and 16ths ... ..	36/-	72/-	— "
890	Marked on one side into inches and 16ths, centimetres into millimetres ... ..	41/-	—	— "
891	Marked on one side into inches, 16ths, 32nds and 64ths, centimetres into millimetres and halves ... ..	43/-	81/-	131/- "
892	Marked on both sides into inches, 16ths, 32nds, 64ths, 10ths, 20ths, 50ths, 12ths, 24ths, 48ths, centimetres into millimetres and halves ... ..	59/-	122/-	— "
2001	Marked on one side into inches, 10ths, 20ths, 50ths and 100ths, centimetres into millimetres and halves ... ..	43/-	—	131/- "
2003	Marked on both sides into inches, 16ths, 32nds and 64ths, centimetres into millimetres, Spanner and Tapping sizes ... ..	59/-	—	— "
1104	Marked on one side, centimetres into millimetres ... ..	43/-	—	— "
1105	Marked on one side, centimetres into millimetres and halves ... ..	—	—	131/- "
5349	Marked on both sides into inches, 16ths, 32nds, 64ths, centimetres into millimetres and halves. Architectural scales, viz., 1/500, 1/50, 1/40, 1/30, 1/20, 1/10, $\frac{1}{8}$ , $\frac{1}{4}$ , $\frac{1}{2}$ , 1, $\frac{3}{4}$ , $\frac{1}{2}$ , 3 in., and 1/2500 ft.; also protractor degree lines, 90° to 5° ... ..	—	142/-	— "

Machine divided.  $\frac{1}{2}$  in. wide  $\times$  1/32 in. with 8-in. Lock Joints.

No.	Description	Length ...	1 metre	2 metres
5325	Marked on one side into inches, 16ths, 32nds and 64ths, centimetres into millimetres and halves ... ..	...	131/-	297/- doz.

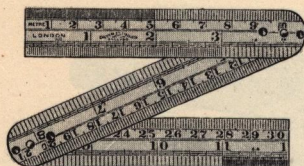
$\frac{3}{8}$  in. wide  $\times$  .02 in. thick and 10-cm. Lock Joints (see illustration)

No.	Description	20 cm.	1 metre
1740	Marked on one side, centimetres into millimetres ... ..	34/-	108/- doz.

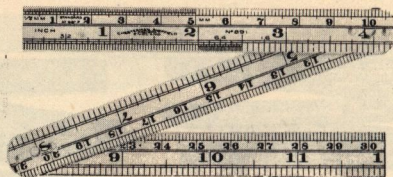




# Machine-Divided Pocket Steel Rules

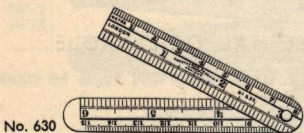


No. 600/6

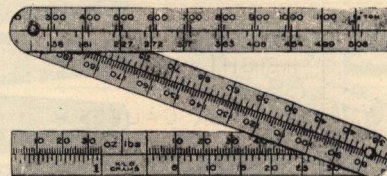


No. 1445

Obverse



No. 630



Reverse

No. 600/6. 12 in. long  $\times \frac{3}{4}$  in. wide  $\times \cdot 02$  in. thick, and folds into three.

No. 630. 6 in. long  $\times \frac{1}{2}$  in. wide  $\times \cdot 032$  in. thick, and folds into two.

No. 1445. This is a handy little Rule with English and French measure on one side, and on the other side a scale for converting French kilos into English lbs., and vice versa. 12 in. long  $\times \frac{1}{2}$  in. wide  $\times \cdot 02$  in. thick and 4-in. Lock Joints.

NOTE.—Leather Cases can be supplied for above at an extra price.

No.	Description	Per dozen
600/6	Marked on one side only, inches into 16, 32, and 64ths; centimetres into millimetres and halves ... ..	68/-
600/1	Marked on both sides. Scales to $\frac{1}{8}$ , $\frac{1}{4}$ , $\frac{3}{8}$ , $\frac{1}{2}$ , $1\frac{1}{2}$ , and 3 in. Armstrong pattern ... ..	81/-
600/2	Marked on both sides, inches into 16, 32, and 64ths. Scales $\frac{1}{8}$ , $\frac{1}{4}$ , $\frac{3}{8}$ , $\frac{1}{2}$ , and 1 in. ... ..	81/-
600/3	Marked on both sides, inches into 16, 32, and 64ths; centimetres into millimetres and halves. Scales $\frac{1}{8}$ , $\frac{1}{4}$ , $\frac{3}{8}$ , $\frac{1}{2}$ , and 1 in. ... ..	84/-
600/4	Marked on both sides, inches into 16, 32, 64, 10, 20, 40, 50, 100, 12, 24, 48, and 96ths; centimetres into millimetres and halves ... ..	84/-
630	Marked on one side into inches and 16ths, centimetres into millimetres ... ..	34/-
631	Marked on one side into inches, 16, 32, and 64ths ... ..	34/-
632	Marked on one side into inches, 16, 32, 64, 10, 20, 50, and 100ths ... ..	41/-
710	Marked on one side into inches, 16, 32, 64ths; and centimetres into millimetres and halves ... ..	41/-
711	Marked on one side into inches and 20ths, centimetres into millimetres ... ..	34/-
713	Marked on both sides into 16, 32, 64, 10, 20, 40, 50, 100, 12, 24, 48, and 96ths; centimetres into millimetres and halves ... ..	68/-
1445	Marked on the top side 16, 32, and 64ths, centimetres into millimetres and halves; on the bottom side English lbs. and kilogrammes ... ..	72/-



## Section 5

STANDARD MEASURING GAUGE	KEY-WAY RULE
ENGINEERS' TOOLS	KEY SEAT GAUGE
HEIGHT GAUGES	HOLE GAUGES
VERNIER GAUGES	DECIMAL DRILL RULE
DEPTH GAUGES	HOOK RULE
MICROMETER	THICKNESS GAUGES
CALLIPER GAUGES	ANGULAR GAUGES
COMBINATION SETS	TELESCOPIC GAUGES
BOILER PLATE GAUGES	FEELER GAUGES
WIRE GAUGES	GAUGES. VARIOUS
PARALLELS	TRY SQUARES
SCREW PITCH GAUGE	T SQUARES
CENTRE GAUGES	SET SQUARES
	PLUMB BOBS



## **Engineers' Tools**

This section is devoted chiefly to Engineers' Tools of High Precision, to which we have been adding and improving during the last century.

We have in our works some of the finest plant and machinery in the country for the manufacture of these tools, and we can confidently recommend them as first-class engineers' productions.

It will be noticed that practically all the tools in this section are Hardened and Precision Ground THROUGHOUT, such parts as Try Square Stocks, Protractor Heads on Combination Sets, etc., being notable examples of Hardening not usually associated with such articles.

We would also draw attention to such exceptional tools as our Standard Measuring Gauge, which gives a reading of  $1/1000$  in. over a length of 120 in., Vernier Height and Vernier Calliper Gauges, with their beautiful smooth action and fine dividing.

It is impracticable to list all the innumerable types and patterns of measuring instruments we manufacture, but we are always glad to have enquiries for special tools and gauges, together with sketch or drawing, when same will receive our careful consideration.

We are able to supply some of the tools in Rustless Steel, and we should be pleased to quote with regard to same.



# Vernier Height Gauge

91

Marked with name and trade mark

No. 369  
18"

The **Chesterman Height Gauge** is a dividend-paying investment for any shop in which accuracy is maintained, because it substantially and permanently reduces the time and labour and hence the cost of measuring operations.

It does this because accurate measurements can be made with it much more easily, surely and rapidly than is possible with any similar-purpose gauge. This big, strongly-built stabilized instrument is a vast improvement over conventional height gauges; it stands up firmly and solidly and provides every feature needed for quick, accurate setting and sure, easy reading.

It is also adequate for maintaining the higher standards of accuracy in vogue to-day in the production of tools, jigs, fixtures, machine parts for automobiles and aeroplanes and other mechanical devices without the need of resorting to expensive jig-boring and layout machinery.

## Special Features

**Sliding Head:** Distinctly new and different design, the head is moved throughout its entire range by the full-length, large-diameter screw in rear of the beam. The engaging nut is split and is disengaged for quick approximate setting of the head, by simply pressing the two lugs on the sides and sliding the head along the beam.

**Large, Solid Base:** The forward position of the beam helps to avoid tilting.

The Verniers are about  $2\frac{1}{2}$  in. long, giving clear open readings on both scales.

**Triangular Scale Beam** provides the strength and rigidity necessary to prevent sway and vibration.

Standard equipment furnished with each gauge.

One round master gauge block for checking vernier setting.

One depth rod for depth measurements.

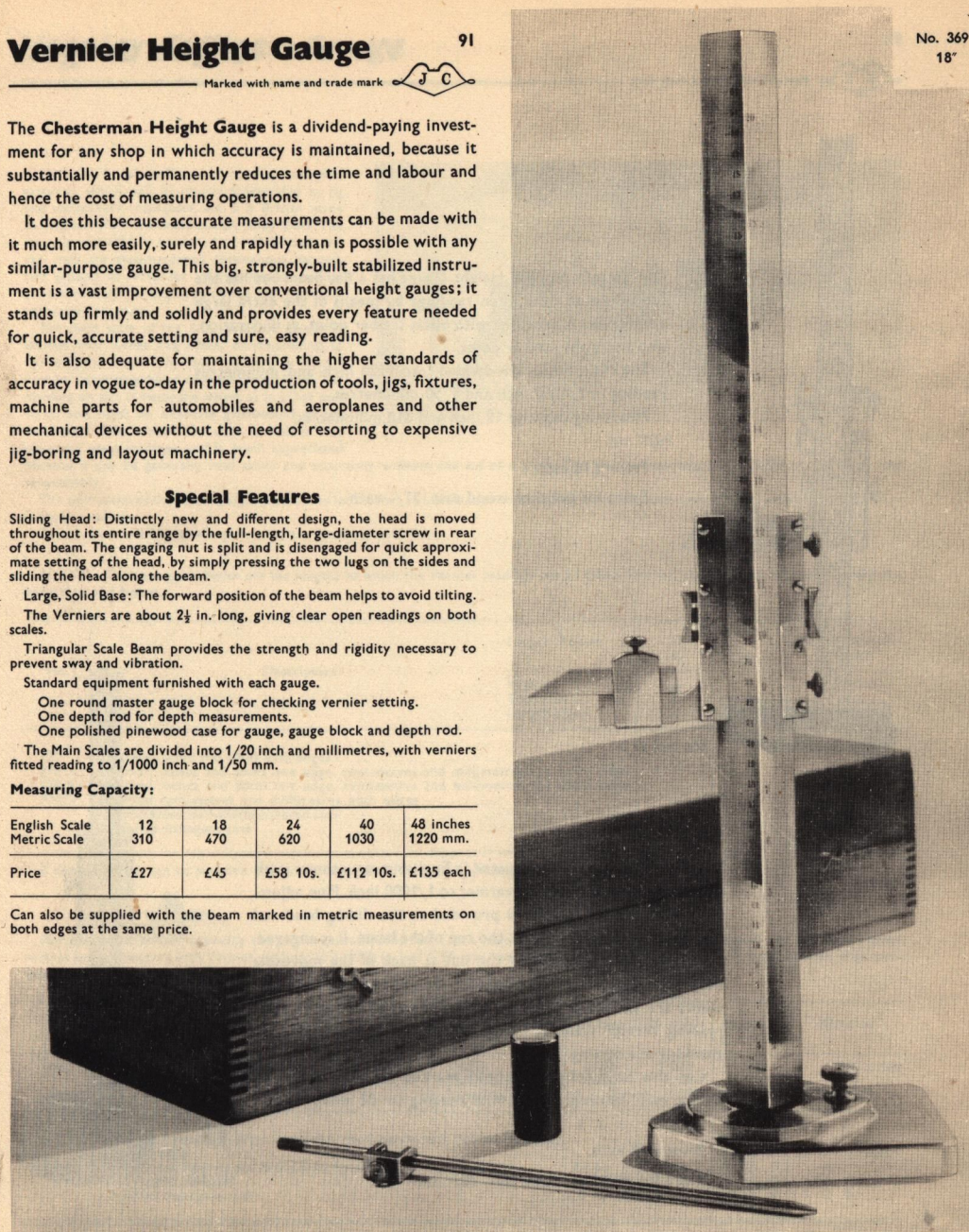
One polished pinewood case for gauge, gauge block and depth rod.

The Main Scales are divided into  $1/20$  inch and millimetres, with verniers fitted reading to  $1/1000$  inch and  $1/50$  mm.

## Measuring Capacity:

English Scale	12	18	24	40	48 inches
Metric Scale	310	470	620	1030	1220 mm.
Price	£27	£45	£58 10s.	£112 10s.	£135 each

Can also be supplied with the beam marked in metric measurements on both edges at the same price.

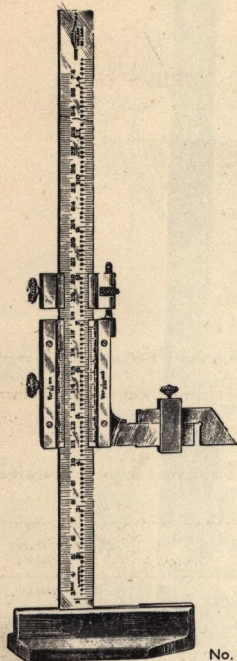


JAMES CHESTERMAN & CO. LTD., SHEFFIELD 11, ENGLAND





## Vernier Height Gauges



No. 368. 12 in.

Our pattern No. 368 Height Gauge has a flat beam but has the advantages of clear open readings by means of the extra large vernier and is provided with offset scriber point, as illustration, also a straight scriber point.

The Main Scales are divided into  $1/20$  inch and millimetres reading in  $1/1000$  inch and  $1/50$  millimetres.

Measuring capacity 12 inch and 310 millimetres.

Price: £18 each.

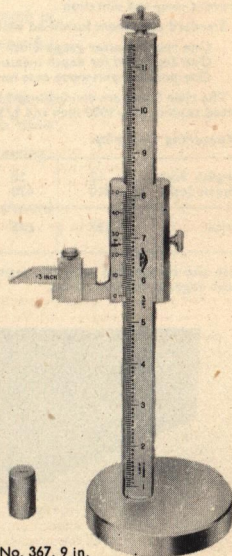
Extra for polished wood case. 21/- each.

This pattern is supplied graduated in English measurement with maximum reading 9 inch by vernier to  $1/1000$  inch. Fine adjustment of a limited amount is provided to the sliding head and operated by a knurled nut at the top of the beam. It is engaged, or disengaged, by operating the nut at back of the moveable head. The gauge is quite simple in manipulation and measurements are easily and accurately determined by an open, clear reading vernier scale. A 1 inch standard plug is included for checking the setting.

Can also be supplied with beam marked in metric measurements, millimetres giving Vernier reading to  $.02$  millimetres.

Price: £12 each.

Extra for polished wood case. 20/- each.



No. 367. 9 in.



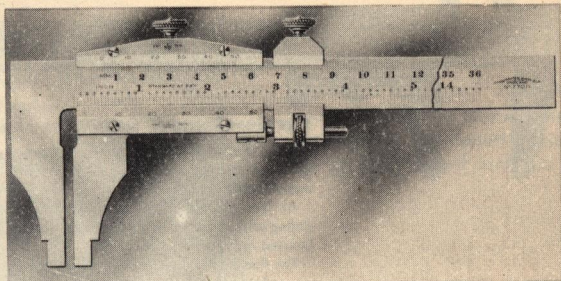


A high class Precision Gauge combining improved features, which will be readily appreciated by jig and toolmakers, inspectors, etc. It is British made throughout from the finest quality Alloy Steel. The beam is scientifically hardened and tempered, and the jaws are glass-hardened throughout, lapped, and ground to radius for internal measurements; allowance sizes are engraved on the jaw flats with respective plungers.

The main scale of the 4-in. and 6-in. gauges is divided into inches and 40ths, corresponding to our original model No. 360, but a new departure has been introduced on the Vernier Scale. The dividing on this is twice the length as in other patterns, and reads on alternate graduations of the main scale. This enables the user to obtain very clear and open readings, and is much appreciated because it can be generally read easily and accurately without the aid of a glass. The Vernier readings give 1/1000 in. and 1/50 mm. respectively.

The main scales of the 12-in. gauges are divided into inches and 20ths, also centimetres and millimetres respectively, with quality and other features as above.

Both English and Metric measurements are Standard at 68° Fahr.



No. 770/1

**NOTE.**—The sizes given below are the lengths to which the Vernier readings can be taken, internal and external, and not merely the length of the beam.

No.	Description	Length of beam ...	10 4	15 6	30 centimetres 12 inches
		Width ... Thickness ... Length of jaw ...	$\frac{9}{16}$ $\frac{1}{8}$ $1\frac{1}{2}$	$\frac{9}{16}$ $\frac{1}{8}$ $1\frac{1}{2}$	$\frac{3}{4}$ inches " " $2\frac{1}{4}$ "
770	Marked inches and 40ths both edges	£ s. d.	—	£ s. d.	£ s. d.
770/1	Marked inches and 40ths one edge, centimetres and millimetres the other edge	9 0 0	10 0 0	—	— each
770/1	Marked inches and 20ths one edge, centimetres and millimetres the other edge	—	—	16 5 0	"
770/2	Marked centimetres and millimetres both edges	—	10 0 0	16 5 0	"
	Wood-fitted leatherette covered case	0 6 6	0 9 0	0 13 6	"
	Polished mahogany case	0 15 6	0 18 0	1 7 0	"

If desired gauges can be supplied with knife-edge jaws. Prices on application.

For gauges of longer capacity the reference number is 360/1, the main scales of which are divided into inches and 20ths, also centimetres and millimetres with Vernier readings to 1/1000 in. and 1/50 mm. respectively. The section of the beam is much heavier, thus compensating against whipliness and deflection.

No.	Description	Length of beam	50 cms.	24 inches	40 inches (1 metre)	48 inches
		Width ...	1.075	1.075	1.300	1.300 inches
		Thickness ...	.200	.200	.275	.275 "
		Length of jaw ...	2½ (2.500)	2½ (2.500)	2¾ (2.750)	2¾ (2.750) "
360/1	Marked inches and 20ths one edge, centimetres and millimetres the other edge ... ..	£ s. d.	£ s. d.	£ s. d.	£ s. d.	
363/2	Marked centimetres and millimetres both edges ... ..	23 10 0	23 10 0	41 10 0	59 10 0 each	
	Polished wood case ... ..	0 18 0	0 18 0	1 12 0	1 16 0 "	
	Polished mahogany case ... ..	2 15 0	2 15 0	3 10 0	5 5 0 "	





Marked with name and trade mark

# Steel Calliper Gauges



No. 1075

## Vernier Calliper Gauge

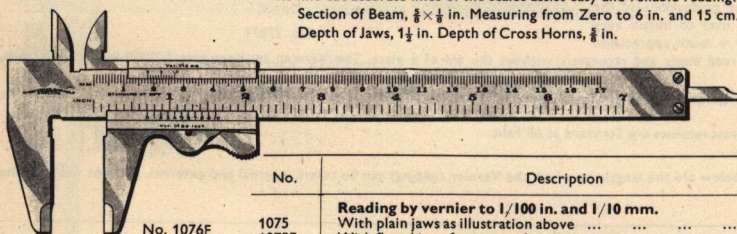
Made of the best quality Carbon Tool Steel, the beam is hardened and tempered, the jaws scientifically hardened throughout, precision ground and lapped. It is also fitted with cross horns, bevelled for internal measurements.

An ideal toolmaker's and mechanic's gauge, rigid and handy for quick and accurate reading. The sliding jaw may be readily moved to the desired point of graduation by pressing the thumb against the knurled spring lever.

The fine cut accurate lines of the scales assist easy and reliable reading.

Section of Beam,  $\frac{3}{8} \times \frac{1}{8}$  in. Measuring from Zero to 6 in. and 15 cm.

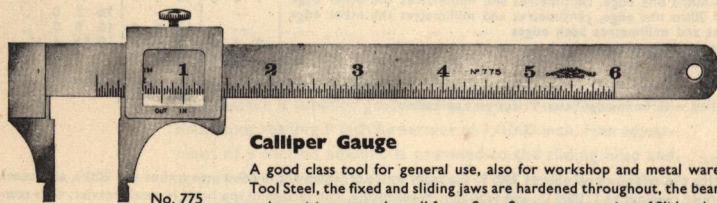
Depth of Jaws,  $1\frac{1}{2}$  in. Depth of Cross Horns,  $\frac{3}{4}$  in.



No. 1076F

No.	Description	Price
1075	Reading by vernier to 1/100 in. and 1/10 mm.	
1075F	With plain jaws as illustration above ... ..	60/- each
1076F	With fluted jaws for external measurement ... ..	63/- "
	With fluted jaws for external measurement and Depth Gauge attachment recessed into reverse side of beam ... ..	70/- "
1076F/1	Reading by vernier to 1/128 in. and 1/10 mm.	
	With fluted jaws for external measurement and Depth Gauge attachment recessed into reverse side of beam ... ..	70/- "

Plastic Cases can be supplied at an extra price.



No. 775

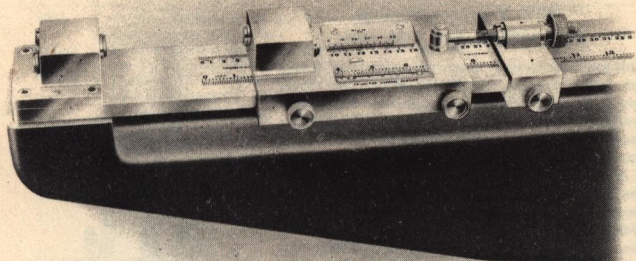
## Calliper Gauge

A good class tool for general use, also for workshop and metal warehouse. Made of the best Alloy Tool Steel, the fixed and sliding jaws are hardened throughout, the beam being hardened and tempered and precision ground on all faces. Snug fit yet easy running of Slide; the latter may be readily moved to the position of graduation desired by pressing the thumb in the concavity of the underside of movable jaw. The clean-cut accurate lines of Scale make readings easy and reliable, the obverse side of the Beam is graduated in Inches and 32nds up to 6 inches; the reverse side in cms., mms. and  $\frac{1}{4}$  mms. up to 15 cms., with two lines cut on cursor of each side for taking internal and external measurements direct. The setting lines give facilities for dividing the graduations on the Beam thus estimating 64ths of an inch and  $\frac{1}{4}$  mms.

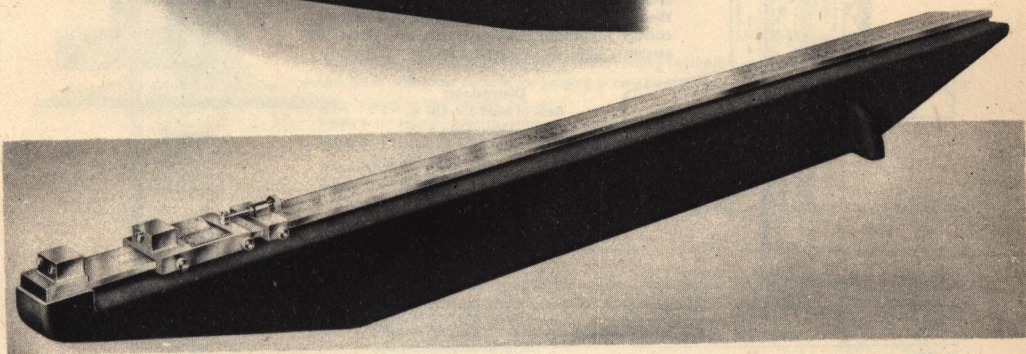
Size, 6 in. (15 cms.). Depth of Jaws,  $1\frac{1}{2}$  in. Nibs when closed,  $\frac{1}{4}$  in.

No.	Description	Price
775	Marked inches and 32nds one side, mms. and $\frac{1}{4}$ mms. the other ... ..	36/- each
775/1	Marked inches and 32nds one side, inches and 50ths the other ... ..	36/- "
775/2	Marked inches and 50ths one side, mms. and $\frac{1}{4}$ mms. the other ... ..	36/- "





For use as a "Master" or check, and for determining accurate measurements on End measuring rods, Pin gauges, Standard bars, etc.



This is a highly finished Engineers' instrument, fitted with screw adjustment to read by verniers to 1/1000th inch and 1/50th millimetre. The measurements are taken from the hardened steel plugs (shown in the above illustration) and give both internal and external readings; flat jaws may be substituted for the plugs if desired.

The gauge is mounted upon a substantial C.I. Base which provides steadfast rigidity and enables it to be self contained.

## RANGE OF MEASUREMENTS

### Size: 80 in. (2 metres)

Plug Jaws: External 0 to 80 in. (0 to 2050 mm.).  
Internal 4 to 84 in. (100 to 2150 mm.).

Flat Jaws: External as above.  
Internal 2 to 82 in. (50 to 2100 mm.).

From centre of plug jaws to surface of scale, 1 in.

Overall length, 7 ft. 9 in.

Width, 8 in.

Height, 10½ in.

Weight approx. 2½ cwt.

Price £162

### Size: 120 in. (3 metres)

Plug Jaws: External 0 to 120 in. (0 to 3050 mm.).  
Internal 4 to 124 in. (100 to 3150 mm.).

Flat Jaws: External as above.  
Internal 2 to 122 in. (50 to 3100 mm.).

From centre of plug jaws to surface of scale, 1 in.

Overall length, 11 ft. 1 in.

Width, 8 in.

Height, 12 in.

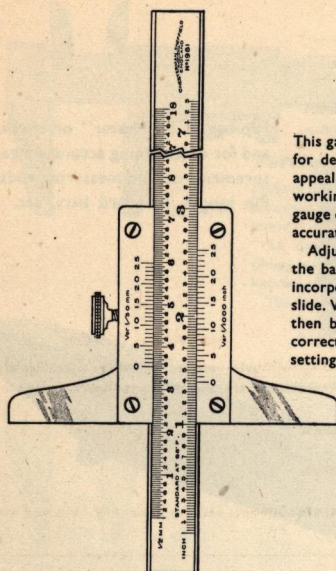
Weight approx. 3½ cwt.

Price £216





# Vernier Depth Gauges



No. 1981 Obverse

## With Verniers reading to 1/1000 in. and 1/50 mm.

This gauge which is an improved design is invaluable for determining accurate measurements, and should appeal to the Inspector and Engineers' tool maker working to fine limits. New features embodied in the gauge enables the user to save much time in recording accurate readings with much convenience.

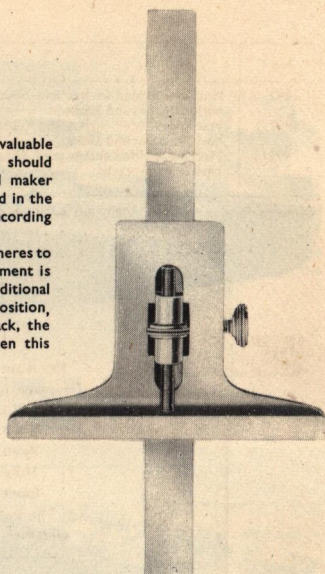
Adjustment is made by a spring clip which adheres to the bar giving a friction grip. The fine adjustment is incorporated in the head instead of using an additional slide. Viz.: Slide the beam to the approximate position, then by revolving the knurled nut at the back, the correct adjustment position is attained. When this setting is made; fix with locking screw.

### Dimensions:

Base of head 3 x .450 in.

Beam .450 x .150 x .9 in.

Measuring capacity 6 in. and 150  
mms. and 12 in. and 300 mms.



No.	Size ...	6	12 inches
1981	Extra for wood-fitted leatherette covered case	£8 9/-	£9 each 17/- "

The blade is of hardened and tempered steel and all beams are hardened throughout.

Blade 6 in. x  $\frac{1}{8}$  in. wide x 5/100ths thick.

Beam 2  $\frac{1}{8}$  in. x  $\frac{1}{8}$  in. thick.

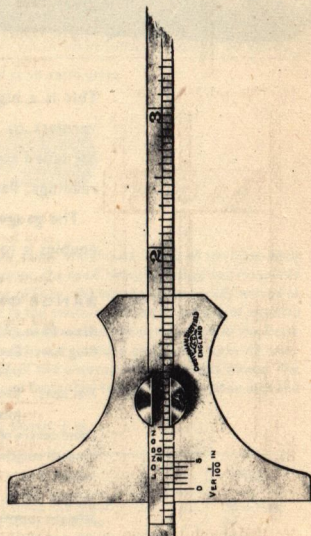
Blade 12 in. x  $\frac{1}{8}$  in. wide x 7/100ths thick.

Beam 4  $\frac{1}{8}$  in. x  $\frac{1}{8}$  in. thick.

No.	Size ...	6	12 inches
1980	Machine-divided to read by vernier to inches and 1/100ths one side and the back in inches and 64ths	18/-	23/6 each
1985	Machine-divided to read by vernier to inches and 1/100ths one side and the back in millimetres	18/-	23/6 "
660	Machine-divided to read by vernier to inches and 100ths one side and the back to 1/10th of a millimetre	30/-	35/6 "

No.	Size ...	15	20	30 centimetres
1983	Machine-divided to read by vernier to 1/10th of a millimetre one side and the back in millimetres	18/-	20/-	23/6 each

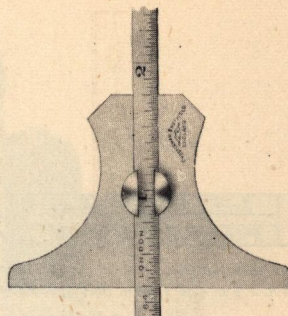


No. 1980. 6 in. (full size)



No.	Size ...	6	12 in.
1992	Machine-divided inches and 64ths one side and the back in inches and 32nds...	12/-	18/- each
1992/1	Machine-divided inches and 100ths one side and the back in inches and 64ths	12/-	18/- "
1992/2	Machine-divided inches and 32nds one side and the back in millimetres	12/-	18/- "

Same pattern as our No. 1980, but without vernier for direct reading.



No. 1992. 6 in. (Full size)

This is another type of Gauge which gives direct reading (without a vernier) and has the advantage of a movable blade which can be used for gauging in two positions, centrally, or in a confined space, as for example, in gauging over flanges, etc., etc.

Blade 6 in. long  $\times$  3/16 in. wide  $\times$  5/100ths thick.

Beam 3 in. long  $\times$  3/16 in. wide  $\times$  3/16 in. thick.

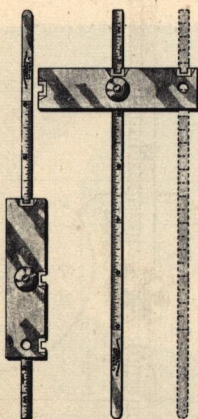
Blade 12 in. long  $\times$  3/16 in. wide  $\times$  7/100ths thick.

Beam 6 in. long  $\times$  3/16 in. wide  $\times$  3/16 in. thick.

The beam has a bevelled edge and is **hardened throughout**, and the blade is of hardened and tempered steel.

No.	Size ...	6	12 in.
1986	Machine-divided to read one side inches and 32nds, and inches and 64ths on the reverse	12/-	20/- each
1986/1	Machine-divided to read one side inches and 64ths, and inches and 1/100ths on the reverse	12/-	20/- "
1986/2	Machine-divided to read one side inches and 32nds, and centimetres and millimetres on the reverse	12/-	20/- "

No. 1986 with 3 in. Beam.



No. 1986/3 with 3 in. Beam.

This gauge is similar to our pattern No. 1986, and has the advantage of a movable blade which can be used for gauging in three positions. It is made with an additional grooved slot running lengthways down the beam. By transferring the blade to this slot, the beam can be used in a vertical position, which readily overcomes a difficulty in narrow or restricted places, such as in bore or drill holes, etc.

All readings are taken from a bevel in each respective position. The beam is hardened throughout and the blade is hardened and tempered.

No.	Size ...	6	12 inches
1986/3	Machine divided to read one side inches and 32nds, and inches and 64ths on the reverse	18/-	26/- each
1986/4	Machine divided to read one side inches and 64ths, and inches and 1/100ths on the reverse	18/-	26/- "
1986/5	Machine divided to read one side inches and 32nds, and centimetres and millimetres on the reverse	18/-	26/- "

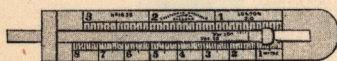
We can, if required, supply a 6 in. beam to a 6 in. blade at an extra price of 4/- each.





# Depth Gauges for Engineers

**Made of Best Hardened and Tempered Steel, and is used for Measuring Depths of Holes, Recesses, etc.**



No. 1635 (Half size)

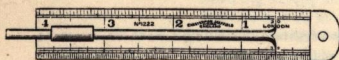
3 in.  $\times$   $\frac{3}{4}$  in. wide  $\times$  .03 in. thick

No.	Description	Price each
1635	(See illustration) Has the slide, for measuring the depth, marked to read by verniers, to inches and 100ths and to millimetres and 10ths. The other side is for use as a rule, and is marked into inches and 64ths and millimetres and halves ...	25/-
1636	Has the slide marked inches into 100ths and 64ths. Rule side same as No. 1635 ...	25/-
1637	Has the slide marked inches into 32nds and 64ths. Rule side same as No. 1635 ...	25/-
1638	Has the slide marked inches into 64ths and millimetres into 10ths. Rule side same as No. 1635 ...	25/-
1639	Has the slide marked inches into 100ths. Rule side marked inches into 20ths, 50ths and 100ths ...	25/-
1641	As 1635, but verniers reading to inches and 1000ths and millimetres and 10ths ...	27/6
1640	One side marked inches into 32nds and $\frac{1}{4}$ millimetres for use as rule, other side reading by indicator (without vernier) inches into 64ths and $\frac{1}{4}$ millimetres ...	26/6

**Made of Best Hardened and Tempered Steel, and is used for Measuring Depths of Holes, etc.**

This is a cheaper type of Depth Gauge which gives direct reading (without a vernier).

This pattern is intended as a cheaper gauge than our pattern No. 1635, and consists of one of our machine-divided rules fitted with a sliding bar, as shown in illustration.



No. 1222 (Half size)

$\frac{3}{4}$  in. wide  $\times$  .03 in. thick.

No.	Description	4	6 inches
1222	Marked on one side only into 20ths and 32nds (see illustration) ...	43/-	57/- doz.
1224	Marked on both sides into 16ths and 32nds ...	57/-	72/- ..
1225	Marked on one side only into 16ths, 32nds and 64ths ...	43/-	57/- ..
1341	Marked on one side only centimetres into millimetres and inches into 16ths, 32nds and 64ths ...	43/-	57/- ..





## ENGLISH

To read by VERNIER .0001 in.

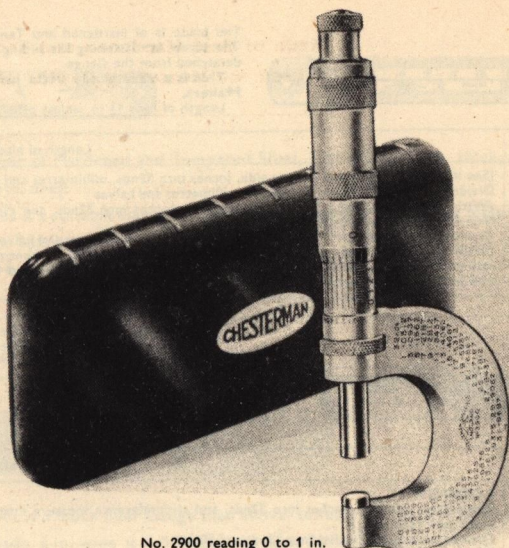
No. 2900 (reading 0 to 1 in.),  
90/- each.

No. 2900/2 (reading 1 to 2 in.),  
108/- each.

## METRIC

Reading to .01mm.

No. 2901 (reading 1 to 25 mm.),  
90/- each.



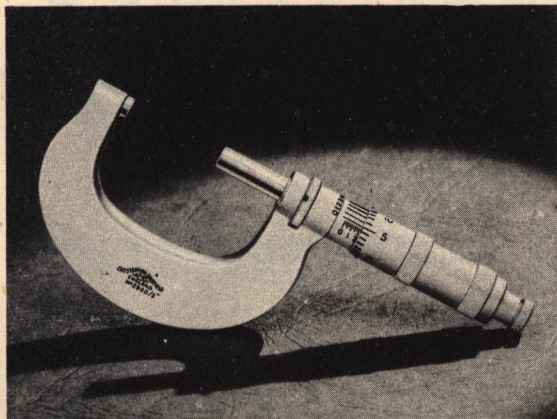
No. 2900 reading 0 to 1 in.

This gauge has been specially designed after numerous experiments to give ease in handling and long service. The spindle where it emerges from the frame is well supported in a long hardened bush. The nut has an exceptionally long bearing on the screw and is

designed to close uniformly throughout its length when adjustments are made. This unique improvement enables the spindle thread to retain its accuracy over a long period, and reduces the wear to a minimum. The spindle is made of a special high-grade alloy steel, it has a ground thread and is scientifically hardened throughout. Both spindle and anvil measuring faces are lapped to optical flats. The graduation lines are very clearly defined, the figures and decimal equivalents being particularly distinct. The bevel being flatter than is customary aids to accuracy in reading.

The gauge is finished with a special chrome matt finish which eliminates all reflections and enables it to be used with ease under all conditions of lighting. The finish, moreover, is practically rustproof.

The gauge is made to the highest degree of accuracy and in accordance with the formula laid down by the British Standards Institute.



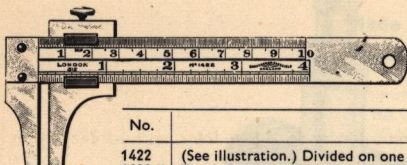
No. 2900/2 reading 1 to 2 in.





Marked with name and trade mark

# Steel Calliper Gauges



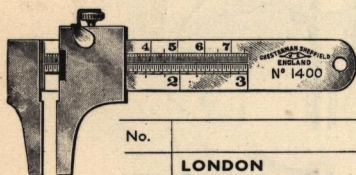
No. 1422

The blade is of Hardened and Tempered Steel, and the jaws are hard. The screw for fastening the sliding jaw is so made that it cannot become detached from the Gauge.

This is a very handy little instrument for Machinists and Tool Makers.

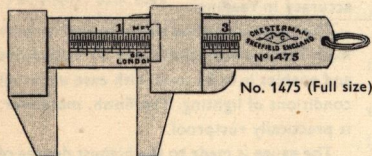
Length of jaws  $1\frac{1}{2}$  in. unless otherwise stated.

No.		Length of blade ...	3	4	6 inches
1422	(See illustration.) Divided on one side, inches into 32nds, millimetres and halves	16/6	17/-	18/-	each
1422/1	Divided on one side, inches into 64ths, millimetres and halves	16/6	17/-	18/-	..
1422/2	(With jaws $1\frac{1}{2}$ in. long.) Divided on one side, inches into 32nds, and circumference measure into 16ths	17/-	18/-	19/-	..
1422/3	Divided on both sides, inches into 32nds, 48ths, 50ths, millimetres and halves	17/-	18/-	19/-	..
1422/4	(With jaws $1\frac{1}{2}$ in. long.) Divided on both sides, inches into 32nds, centimetres into millimetres and halves, also showing circumference in inches and 16ths, and in centimetres and millimetres	18/-	19/-	20/-	..



No. 1400

No.		Length of blade ...	3	4	6 inches
<b>LONDON</b>					
1402	Divided on one side, inches into 32nds, and circumference measure into 16ths (with jaws $1\frac{1}{2}$ in. long.)	23/6	26/-	29/-	each
1403	Divided on one side, inches into 32nds and 50ths	23/6	26/-	29/-	..
1406	Divided on one side, inches into 20ths and 32nds	23/6	26/-	29/-	..
1409	Divided on one side, inches into 32nds and 40ths	23/6	26/-	29/-	..
1411	Divided on both sides, inches into 20ths, 50ths and 32nds, and circumference measure into 16ths (with jaws $1\frac{1}{2}$ in. long.)	25/6	28/-	30/6	..
<b>METRE</b>					
1408	Divided on one side, centimetres into millimetres and halves	23/6	26/-	29/-	..
<b>LONDON AND METRE</b>					
1400	Divided on one side, inches into 32nds; centimetres into millimetres and halves	23/6	26/-	29/-	..
1401	Divided on both sides, inches into 32nds, 48ths, 50ths; centimetres into millimetres and halves	25/6	28/-	30/6	..
1404	Divided on both sides, inches into 32nds; centimetres into millimetres and halves; also showing circumference in inches and 16ths and in centimetres and millimetres (with jaws $1\frac{1}{2}$ in. long.)	25/6	28/-	30/6	..
1407	Divided on one side, inches into 20ths; centimetres into millimetres and halves	23/6	26/-	29/-	..
1415	Divided on both sides, inches into 64ths, 40ths and 80ths; centimetres into millimetres and halves	25/6	28/-	30/6	..
1417	Divided on one side, inches into 64ths; centimetres into millimetres and halves	23/6	26/-	29/-	..
<b>LONDON, METRE, TAPPING AND SPANNER</b>					
1413	Divided on both sides, inches into 32nds; centimetres into millimetres and halves; and tapping and spanner sizes	25/6	28/-	30/6	..



No. 1475 (Full size)

This is a handy little Gauge for use in light work. Very small and portable. A split ring is provided for attaching to the watch chain.

Length of jaws  $\frac{3}{4}$  in. unless otherwise stated.

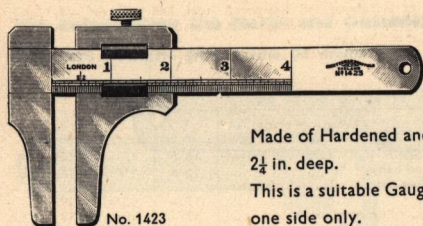
No.		Length of blade ...	$1\frac{1}{2}$	2	3 inches
1465	Divided on one side into 32nds, and circumference measure into 16ths (with jaws $1\frac{1}{2}$ in. long.)	13/6	15/3	16/3	each
1466	Divided on one side, inches into 64ths and 50ths	13/6	15/3	16/3	..
1475	Divided on one side, inches into 64ths, and centimetres into millimetres and halves	13/6	15/3	16/3	..



# Rolling Mill Steel Calliper Gauges

101

Marked with name and trade mark

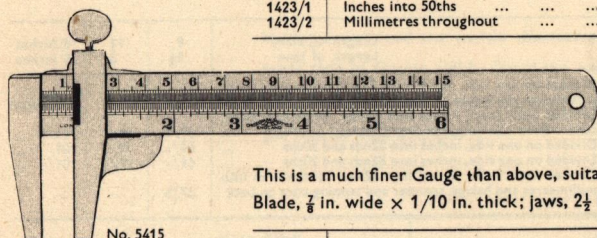


No. 1423

Made of Hardened and Tempered Steel,  $\frac{3}{4}$  in. wide  $\times$   $\frac{1}{8}$  in. thick, with hardened jaws  $2\frac{1}{2}$  in. deep.

This is a suitable Gauge for strong and rough work in rolling mills, etc. It is marked on one side only.

No.	Length of blade ...	10 4	15 cm. 6 inches
1423	Inches into 32nds ... ..	56/-	62/- each
1423/1	Inches into 50ths ... ..	56/-	62/- "
1423/2	Millimetres throughout ... ..	56/-	62/- "



No. 5415

This is a much finer Gauge than above, suitable for work in rolling mills, etc.

Blade,  $\frac{7}{8}$  in. wide  $\times$   $1/10$  in. thick; jaws,  $2\frac{1}{2}$  in. deep.

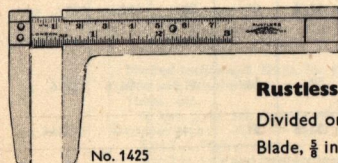
No.	Length of blade ...	10 4	15 cm. 6 inches
5415	Divided on one side inches into 32nds, centimetres into millimetres and halves ... ..	67/6	90/- each

## Heavy Pattern Rolling Mill Gauge

Made of Hardened and Tempered Steel, 1 in. wide  $\times$   $\frac{1}{4}$  in. thick, with hardened jaws.  $4\frac{1}{2}$  in. plain at end for handle for gauging hot metal.

Similar pattern to No. 5415 as shown above, but stronger section.

No.	Length of blade ... Length of jaw ...	6 2 1/2	9 2 1/2	12 inches 3 inches
5407/1	Divided on one side inches into 32nds, centimetres into millimetres and halves ... ..	112/6	135/-	158/- each



No. 1425

## Rustless Steel Calliper Gauge

Divided on one side inches into 32nds, centimetres into millimetres.

Blade,  $\frac{5}{8}$  in. wide  $\times$   $3/16$  in. thick; length of jaws,  $1\frac{3}{4}$  in.

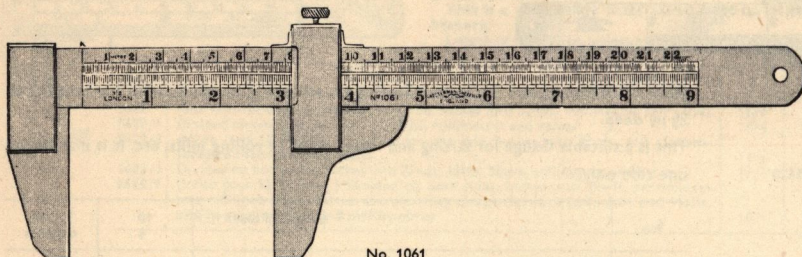
No. 1425 ... .. 3 in. long, 45/- each.





# Steel Calliper Gauges

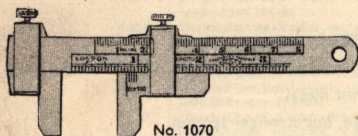
The following are longer and stronger in proportion



No. 1061

No.	Length of blade ... Length of jaws ...	9 2½	12 3	18 inches 3½ inches
1061	Divided on one side, inches into 32nds, centimetres into millimetres and halves ... ..	61/-	71/-	101/- each
1063	Divided both sides, inches into 32nds, 48ths and 50ths, centimetres into millimetres and halves ... ..	67/6	81/-	121/6 ..
1064	Divided on one side, inches into 32nds and 50ths ... ..	61/-	71/-	101/- ..
1065	Divided on one side, inches into 32nds and 20ths ... ..	61/-	71/-	101/- ..
1062	Divided both sides, inches into 32nds, centimetres into millimetres and halves, spanner and tapping sizes on back	67/6	—	— ..

This pattern has a vernier, also an adjustable head, which, when worn untrue, can be removed, and re-trued making it as good as new



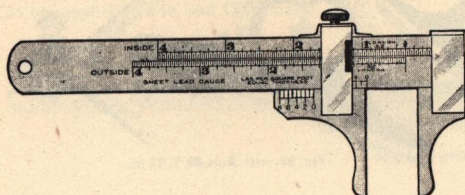
No. 1070

No.	Length of blade ... Length of jaws ...	3 1	6 1½	9 2½	12 2½	18 inches 3 inches
1070	Divided on four edges, inches into 20ths and 32nds, and centimetres into millimetres, with verniers reading to 100ths of an inch and 10ths of a millimetre ... ..	40/6	61/-	88/-	108/-	135/- each
1071	Divided on two edges, inches into 20ths, and centimetres into millimetres, with verniers reading to 100ths of an inch and 10ths of a millimetre ... ..	38/-	54/-	81/-	94/6	121/6 ..
1072	Divided on one edge only, centimetres into millimetres, and verniers reading to 10ths of a millimetre ... ..	33/6	51/-	—	—	— ..
1073	Divided on two edges, inches into 16ths, centimetres into millimetres, with verniers reading to 64ths of an inch and 10ths of a millimetre ... ..	38/-	54/-	81/-	94/6	121/6 ..





**For determining the Inside and Outside Measurements, and also the Weight per Yard of Lead Pipe**



No. 1433 (Half size)

Having ascertained the **inside diameter** of pipe, calliper the **outside** and on the **scale side of Gauge** will be found the weight per yard that such a pipe weighs.

Care should be taken to read the required weight on the **scale apportioned to that particular size of pipe.**

No.	ONE SIDE	REVERSE	Price each
1433	Marked inches and 32nds, for taking inside and outside measurements of Pipes, Tubes, etc. It also gives the weight per square foot of Sheet Lead from 0 to 8 lb. inclusive.	Marked with Gauge lines for fixing the sliding jaw which will give the outside dimensions of the following lead piping: $\frac{3}{8}$ in. pipe of 4, 5, or 6 lb. per yard $\frac{1}{2}$ in. " 4 to 8 lb. per yard $\frac{5}{8}$ in. " 5 to 9 lb. per yard $\frac{3}{4}$ in. " 6 to 12 lb. per yard $\frac{7}{8}$ in. " 7 to 9 lb. per yard 1 in. " 8 to 17 lb. per yard $1\frac{1}{8}$ in. " 10 to 22 lb. per yard $1\frac{1}{4}$ in. " 11 to 23 lb. per yard $1\frac{3}{8}$ in. " 16 to 24 lb. per yard 2 in. " 18 to 30 lb. per yard	40/-
1434/1	Marked inches and 32nds, for taking inside and outside measurements of Pipes, Tubes, etc. It also gives the weight per square foot of Sheet Lead from 0 to 8 lb. inclusive. <b>Made to the Ministry of Health Model Specification.</b>	Marked with Gauge lines for fixing the sliding jaw which will give the outside dimensions of the following lead piping: $\frac{3}{8}$ in. pipe of 4, 5, $5\frac{1}{2}$ , 6 lb. per yard $\frac{1}{2}$ in. " 5, 6, 7, 9 lb. per yard $\frac{5}{8}$ in. " 5, 8, 9, 12, 16 lb. per yard $\frac{3}{4}$ in. " 7, 11, 12, 16, 21 lb. per yard $1\frac{1}{8}$ in. " 9, 14, 16, 21, 28 lb. per yard $1\frac{1}{4}$ in. " 11, 18, 27, 36 lb. per yard 2 in. " 14, 24, 33, 48 lb. per yard	40/-
1434/2	Marked inches and 32nds, for taking inside and outside measurements of Pipes, Tubes, etc. It also gives the outside diameter of copper pipe: $\frac{1}{2}$ to 2 in. High pressure $\frac{1}{2}$ to 2 in. Low and Medium pressure. <b>Made to the Ministry of Health Model Specification.</b>	Marked with Gauge lines for fixing the sliding jaw which will give the outside dimensions of the following lead piping: $\frac{3}{8}$ in. pipe of 4, 5, $5\frac{1}{2}$ , 6 lb. per yard $\frac{1}{2}$ in. " 5, 6, 7, 9 lb. per yard $\frac{5}{8}$ in. " 5, 8, 9, 12, 16 lb. per yard 1 in. " 7, 11, 12, 16, 21 lb. per yard $1\frac{1}{8}$ in. " 9, 14, 16, 21, 28 lb. per yard $1\frac{1}{4}$ in. " 11, 18, 27, 36 lb. per yard 2 in. " 14, 24, 33, 48 lb. per yard	40/-

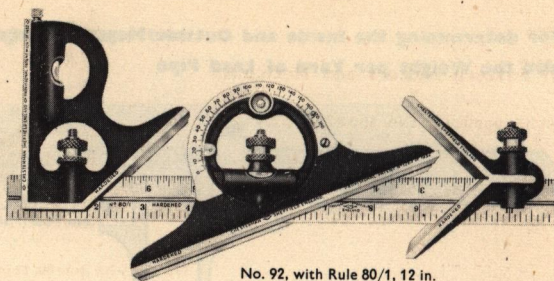




# Engineers' Combination Sets

## Hardened throughout

This is a high-class engineer's tool incorporating certain new improvements which will readily be appreciated by the user.



No. 92, with Rule 80/1, 12 in.

**ALL THE HEADS** (Square, Protractor and Centre) are made from drop forgings, **HARDENED** and **GROUND** and fitted with **PATENT** reversible locking bolt.

**THE LOCKING BOLT** is fitted with a knurled washer which definitely locates the bolt in two positions on the head, thus allowing easy insertion of the blade.

**THE RULE** is made from hardened and tempered steel, ground all over, and provides a very good straight edge. The groove in which the locking bolt engages is also finished by grinding, thereby ensuring a smooth sliding movement of the heads.

**THE PROTRACTOR HEAD** is accurately graduated from 0 to 180 degrees on the **OUTER PORTION**, which enables a more accurate reading to be taken. The revolving centre carrying the zero mark is split and fitted with a conical head bolt and collar, which, when tightened, provides a very effective single point locking device.

**ALL THE HEADS** are interchangeable on the blade and are now supplied with an improved black crackle finish.

**EACH SET** is supplied in cardboard box.

## Description and Price

No. 92 Combination Set complete, comprising Rule, Square Head, Centre Head and Protractor Head	No. 93 Combination Set comprising Rule, Square Head and Centre Head	No. 94 Combination Set comprising Rule and Square Head	No. 96 Combination Set comprising Rule and Protractor Head
With 12" Rule 81/- each " 18" " 89/- " " 24" " 93/6 "	With 12" Rule 43/- each " 18" " 51/- " " 24" " 55/6 "	With 12" Rule 30/- each " 18" " 38/- " " 24" " 42/6 "	With 12" Rule 52/- each " 18" " 60/- " " 24" " 64/6 "

Separate parts for Combination Sets can be supplied at the following prices:

Rule	Square Head	Centre Head	Protractor Head
12" 10/- each 18" 18/- " 24" 22/6 "	21/6 each —	18/- each —	45/- each —

When ordering any of above, rule number should be specified (see below).

## Description of marking on rules for above:

- No. 80 Rule divided on four edges, one edge of each, inches into 1/16 in., 1/32 in., 1/64 in. and 1/100 in.
- No. 80/1 Rule divided on four edges, one edge of each, inches into 1/8 in., 1/16 in., 1/32 in. and 1/64 in.
- No. 80/2 Rule divided on four edges, one edge of each, centimetres into millimetres and halves, inches into 1/64 in., centimetres into millimetres, inches into 1/32 in.
- No. 80/3 Rule divided on four edges, two edges of centimetres into millimetres, and two edges of centimetres into millimetres and halves.
- No. 80/4 Rule divided on four edges, inches into 1/16 in. Contraction K (1/64) and Contraction A (1/96) one side, Contraction C (1/120) and standard inches other side.
- No. 80/5 Rule divided on four edges, one edge each, 1/32 in., 1/16 in., 1/50 in., and 1/20 in.
- No. 80/6 Rule divided on four edges, inches into 1/16ths, Contraction A (1/96) and Contraction B (1/48) one side, Contraction C (1/120) and Contraction D (1/60) other side.



# Combination Square and Centre Head

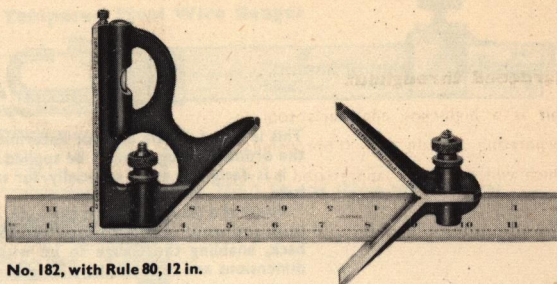
105

Marked with name and trade mark



## For Pattern Makers and Mechanics

Can be supplied in 6 in. and 12 in. sizes



No. 182, with Rule 80, 12 in.

This Tool combines an accurate square complete with Square Head and Centre Head, also a finely divided rule.

The head is accurately machined on all working surfaces.

It is fitted with our patent reversible locking bolt, which permits the rule to be readily inserted. A friction held scriber is also provided.

The rule is made from hardened and tempered steel, ground all over, and provides a good straight edge.

The groove in which the locking bolt engages is also finished by grinding, thereby ensuring a smooth sliding movement of the heads.

Graduations on the rule can be supplied as patterns No. 80, 80/1, 80/2, 80/3, 80/4, 80/5, 80/6.

See page 104 for full description of markings.

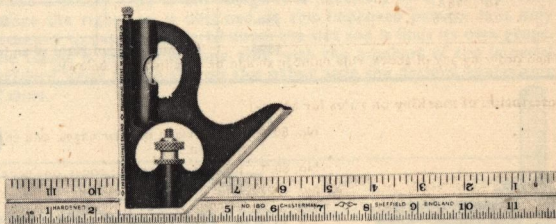
Square Head, Centre Head and Steel Rule					Square Head and Steel Rule				
No. 182	...	6" size	...	21/6 each	No. 184	...	6" size	...	16/3 each
No. 182	...	12" "	...	27/- "	No. 184	...	12" "	...	20/- "

Separate parts can be supplied at the following prices:

Steel Rule			Square Head			Centre Head		
6" size	7/3 each		6" size	9/- each		6" size	7/3 each	
12" "	10/- "		12" "	13/6 "		12" "	10/- "	

## Combination Square

### For Carpenters and Joiners



No. 184/1, with Rule 180, 12 in.

This Tool combines a Square, Mitre and Level, and may be used as a depth gauge or marking-out tool.

The 12 in. rule is made from hardened and tempered steel, ground all over, and is a good straight edge. It is divided into  $\frac{1}{8}$  in. and  $\frac{1}{16}$  in. on both sides.

No. 184/1, 17/- each.

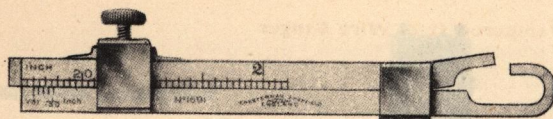
Price for 12 in. Rule only, 7/3 each.

Price for Mitre Head, 13/6 each.





## Boiler Plate Gauge



No. 1691 (Full size)

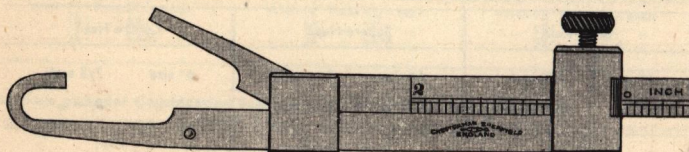
This is a useful little tool for determining the thickness of metals in positions where the ordinary Gauge cannot be applied.

It is designed, more especially, for taking the thickness of a plate in a boiler near a hole.

Insert the Gauge through the hole, and lift it over the burr on the edge, close the jaws, and while in this position tighten the screw. The loose jaw may then be turned back, enabling the Gauge to be withdrawn without releasing the screw, and the dimensions are read off the sliding bar, which is marked as a vernier.

No.	Description	Price each
1691	(See illustration) With vernier reading to 100ths of an inch one side and 10ths of a millimetre other side ... ..	40/-
1692	With vernier reading to 64ths of an inch one side and 100ths of an inch other side ... ..	40/-
1693	With vernier reading to 40ths of an inch one side and 64ths of an inch other side ... ..	40/-
1694	With vernier reading to 64ths of an inch on one side only ... ..	40/-
1695	With vernier reading to 64ths of an inch one side and 10ths of a millimetre other side ... ..	40/-

## Lloyds' Register of Shipping Pattern Combination Boiler and Depth Gauge

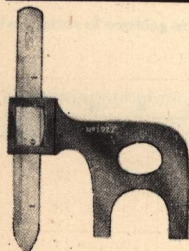


This is another type of Gauge which gives direct reading (without a vernier) and has the advantage of being used as a depth gauge.

No. 1696

No.	Description	Price each
1696	Machine-divided 20ths of an inch one side and 32nds of an inch other side ... ..	51/-

## Hole and Step Gauge



No. 1922

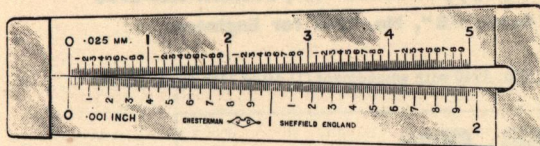
Brass Frame with Hardened and Tempered Steel Blade.

No.	Description	Price each
1921	With the slide machine-divided in inches and 32nds on one side only	28/-
1922	With the slide machine-divided in inches and 32nds on one side and 40ths on other side ... ..	28/-

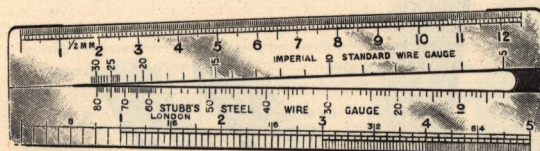




## Pocket "V" Pattern Hardened and Tempered Steel Wire Gauges



No. 2550/1 Obverse (About two-thirds size)

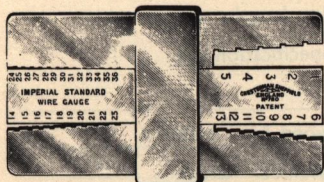


Reverse (About two-thirds size)

This Gauge is designed for taking quick and accurate measurements of wire, drill rod, etc. It is marked on both sides. One side is graduated on the 'V' edges, one edge from 0 to 5 mms. reading to .025 mms., the other edge is graduated from 0 to .2 in. reading to .001 in. The other side is graduated as follows: Outer edges, one from 0 to 12 cms. in  $\frac{1}{2}$  mms., and the other edge from 0 to 5 in., 1 in. into 8ths, 2 in. in 16ths, 1 in. in 32nds, and 1 in. in 64ths. The inner or 'V' edges are graduated as follows: One showing Imperial Standard Wire Gauge, and one showing Stubb's Steel Wire Gauge Sizes. The user, therefore, can instantaneously read fine parts of an inch, and/or metric standard, and their equivalents in Imperial Standard and/or Stubb's Wire Gauge Sizes at the same time. Price, 33/6 each.

No. 2550/2. Exactly as above, but outside edge of reverse side marked in **decimals** to 1/100ths of an inch, instead of fractions to 64ths. Price, 33/6 each.

## Chesterman's Patent Imperial Standard Wire Gauge



No. 780 (Half size)

The advantages of this Gauge over other types of Slit Gauges are:  
**QUICKER READING AND GREATER ACCURACY.**

In the ordinary type of Slit Gauge it is necessary to try several sizes before the right one is obtained. In this improved pattern it is only necessary to pass the material down the slot and it finds its own gauge. The Gauge is marked on **one side** with the numbers of the Imperial Standard Wire Gauge and on **the other side** the decimal equivalents of same.

No.	Description	Price each
780	Marked in sizes ranging from 1 to 36 Imperial Standard Wire Gauge, other side decimal equivalents .300 to .0076 in. ... ..	33/6
780/1	Marked in sizes ranging from 11 to 36 Imperial Standard Wire Gauge, also in decimal equivalents .116 to .0076 in. ... ..	27/-
780/2	Marked in sizes ranging from 11 to 36 Standard Wire Gauge, also in decimal equivalents in Metric 2.946 mm. to .205 mm. ... ..	27/-

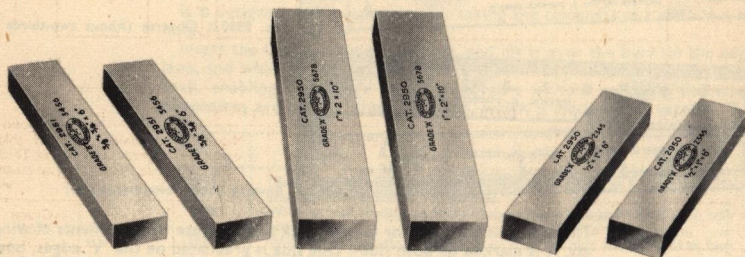
Leather Cases can be supplied at an extra price.





**Hardened, Precision Ground and Lapped Grade "A", Pattern No. 2950  
and Precision Ground Grade "B", No. 2951 for Engineers**

To British Standard Specification No. 906: 1940 with amendment (1) dated 11th January, 1947



Made from high grade steel of special quality and suitably heat treated to remove any stresses resulting from the hardening process. They are made to the high standard of accuracy laid down in The British Standard Specification as tabulated opposite, and available in Grade "A" lapped surfaces, and Grade "B" Precision ground finish.

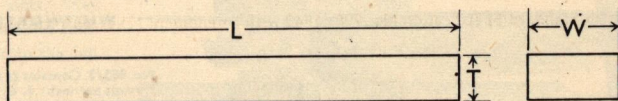
The Parallels are supplied in the following lengths and sections which are to The British Standard Specification and are virtually interchangeable.

Supplied only in pairs fitted into a hardwood box; each pair engraved with individual reference number Grade "A" No. 2950 or Grade "B" No. 2951 and respective sizes.





## Maximum Permissible Errors in Length, Width and Thickness of Parallels



General dimensions			Maximum permissible errors for each parallel						The two parallels of a pair shall have equal mean Thicknesses (T) and equal mean Widths (W) to within	
T.	W.	L.* (minimum)	Tolerance on T. and W.		Amendment (11/1/47) maximum variations in T. and W. not to exceed		Maximum permissible error in straightness from mean true plane			
in.	in.	in.	Grade "A"	Grade "B"	Grade "A"	Grade "B"	Grade "A"	Grade "B"	Grade "A"	Grade "B"
$\frac{1}{4}$	$\frac{1}{4}$	4	$\pm 0.0001$	$\pm 0.00025$	0.00005	0.0001	$\pm 0.00005$	$\pm 0.0001$	0.00005	0.0001
$\frac{3}{8}$	$\frac{3}{8}$	6	$\pm 0.0001$	$\pm 0.00025$	0.0001	0.00015	$\pm 0.0001$	$\pm 0.00015$	0.0001	0.00015
$\frac{1}{2}$	1	6	$\pm 0.0001$	$\pm 0.00025$	0.0001	0.00015	$\pm 0.0001$	$\pm 0.00015$	0.0001	0.00015
$\frac{3}{4}$	$1\frac{1}{2}$	8	$\pm 0.00015$	$\pm 0.0004$	0.00015	0.0002	$\pm 0.00015$	$\pm 0.0002$	0.00015	0.0002
1	2	10	$\pm 0.00015$	$\pm 0.0004$	0.00015	0.00025	$\pm 0.00015$	$\pm 0.00025$	0.00015	0.00025
$1\frac{1}{4}$	$2\frac{1}{2}$	10	$\pm 0.0002$	$\pm 0.0005$	0.00015	0.00025	$\pm 0.00015$	$\pm 0.00025$	0.00015	0.00025
$1\frac{1}{2}$	3	12	$\pm 0.0002$	$\pm 0.0005$	0.0002	0.0003	$\pm 0.0002$	$\pm 0.0003$	0.0002	0.0003

\* The two parallels of a pair agree in length to within 0.010 in.

## PRICES

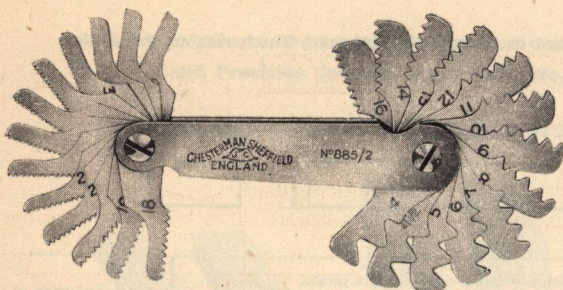
Parallels		Grade "A"		Grade "B"		Case
Sec.	Lengths	Pattern No. 2950		Pattern No. 2951		
in.	in.	Each	Per pair	Each	Per pair	
$\frac{1}{4} \times \frac{1}{2}$	4	60/-	120/-	45/-	90/-	10/-
$\frac{3}{8} \times \frac{3}{4}$	6	70/-	140/-	52/6	105/-	12/6
$\frac{1}{2} \times 1$	6	80/-	160/-	60/-	120/-	12/6
$\frac{3}{4} \times 1\frac{1}{2}$	8	105/-	210/-	80/-	160/-	15/-
1 × 2	10	135/-	270/-	100/-	200/-	17/6
$1\frac{1}{4} \times 2\frac{1}{2}$	10	160/-	320/-	120/-	240/-	17/6
$1\frac{1}{2} \times 3$	12	200/-	400/-	150/-	300/-	20/-





Marked with name and trade mark

# Engineers' Gauges



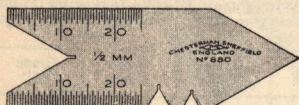
## Screw Pitch Gauge

For measuring the Threads of Screws, Nuts, etc.

### WHITWORTH STANDARD

No. 885/2. Contains 26 blades with the following threads per inch: 4, 4½, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 16 at one end, and 18, 19, 20, 22, 24, 25, 26, 28, 30, 32, 40, 48 and 60 at the other.

Price: 135/- per doz.



## Steel Centre Gauge

For Grinding and Setting Screw-Cutting Tools

No. 878 Whitworth Standard, angle 55°, machine-divided on four edges, inches into 24, 32, 14, and 20ths.

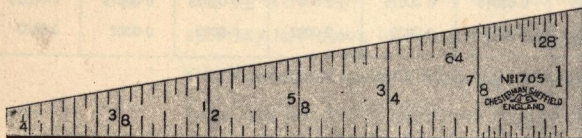
No. 879 U.S. Standard, angles 60°, machine-divided, as above.

No. 880 Metre Standard, angles 60°, machine-divided in millimetres and half-millimetres.

No. 882 British Association Standard, angles 47½°, machine-divided in millimetres and half-millimetres.

The divisions upon the Gauges are very useful for measuring the number of threads to the inch of taps and screws.

Price: 27/- per doz.

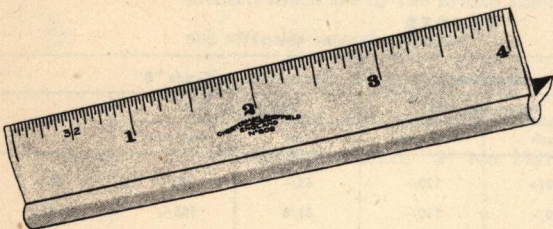


(4 in. x .042 in. thick)

## Key-way Rule

This can also be used as a hole gauge, and for obtaining the diameter of tubes, etc. The back is marked as a rule, and is machine-divided into inches, 16ths, 32nds, and 64ths, and Tapping and Spanner sizes.

No. 1705. Price: 67/- per doz.



## Key Seat Gauge (or Block Square)

This is a convenient little Tool for marking out parallel lines for Key Seats, etc., on Shafts.

It is made either with both legs the same length or with one short and one long leg. Both edges are bevelled and are machine-divided on the bevelled edges.

No.	Description	4	6 inches
802	WITH BOTH LEGS ALIKE (see sketch). Machine-divided on one edge, inches into 32nds and on other edge inches into 16ths	27/-	38/- each
803	WITH ONE SHORT AND ONE LONG LEG. Machine-divided on narrow edge inches into 32nds and on wide edge inches into 16ths	27/-	38/- ..

Made of Best Hardened and Tempered Steel.

Drawings full size



# Steel Wedge Gauge

III

Marked with name and trade mark



These Gauges are made for use on bearing work also for taking measurements of slots. They are made of Hardened and Tempered Steel, divided in the following manner.

Size 6 in. long  $\times$  7/16 in. wide.



Top side

No. 829 (Two-thirds size)



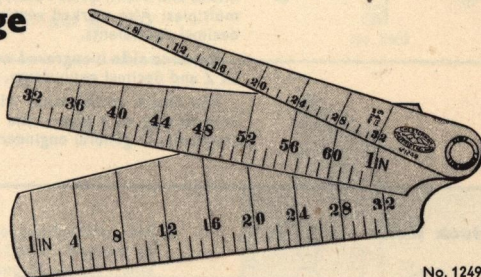
Bottom side

No.	Description	Price each
828	Machine-divided on one side reading from 1/100th to 15/100ths inch rising by 1/500th inch, and on other side from 1/64th to 9/64ths inch rising by 1/256th inch	17/-
828A	Machine-divided on one side reading from 12/100ths to 26/100ths inch rising by 1/500th inch, and on other side from 1/8 to 17/64ths inch rising by 1/256th inch	22/6
828B	Machine-divided on one side reading from 25/100ths to 39/100ths inch rising by 1/500th inch, and on other side from 1/8 to 25/64ths inch rising by 1/256th inch	22/6
828C	Machine-divided on one side reading from 37/100ths to 51/100ths inch rising by 1/500th inch, and on other side from 1/8 to 33/64ths inch rising by 1/256th inch	22/6
829	(See illustration.) Machine-divided on one side reading from 1/100th to 15/100ths inch rising by 1/500th inch, and on other side from 3/10ths of a millimetre to 4 millimetres rising by 1/20th millimetre	17/-

The Set of 5 can be supplied in complete Polished Case, 122/-.

## Hole or Taper Gauge

Specially made for tube gauging, and it is also a handy tool for measuring the width of slots and size of holes in nuts, etc., for inside measurements.



No. 1249

No.	Description	Price each
1240	In 4 pieces, reading in 500ths of an inch from .05 in. to 1 in.	56/-
1241	In 4 pieces, reading in 500ths of an inch from 1 in. to 2 in.	56/-
1244	In 3 pieces, reading in 64ths of an inch from 1/64th in. to 1 1/4 in.	45/-
1248	In 3 pieces, reading in 100ths of an inch from .05 in. to 1 1/4 in.	45/-
1249	In 3 pieces, reading in 100ths of an inch from .05 in. to 1 1/4 in. one side, and 64ths of an inch from 1/16th in. to 1 1/4 in. other side	45/-
5569	In 1 piece, reading in 100ths of an inch from .05 in. to .70 in.	19/-
734	In 1 piece, reading in 50ths of an inch from 0 to 1 in. one side, and 64ths of an inch from 0 to 1 in. other side	9/-
1242	In 1 piece, reading in 20ths of a millimetre from 1 millimetre to 15 millimetres	22/6
1243	In 3 pieces, reading in 10ths of a millimetre from 2 millimetres to 35 millimetres	45/-
1245	In 2 pieces, reading in 10ths of a millimetre from 1 millimetre to 30 millimetres	45/-
1246	In 1 piece, reading in 10ths of a millimetre from 1 millimetre to 15 millimetres	22/6
1247	In 1 piece, reading in 10ths of a millimetre from 15 millimetres to 30 millimetres	22/6

JAMES CHESTERMAN & CO. LTD., SHEFFIELD 11, ENGLAND





Marked with name and trade mark

# Combination Standard Steel Rule

## Decimal Equivalents and Drill Size Tables

Made in best hardened and tempered Rustless Steel

7" overall  $\times$   $\frac{1}{4}$ " wide  $\times$  .026" thick

No. 4102 R

DECIMAL EQUIVALENTS	DRILL SIZES
1/64	.0156
3/64	.0469
1/8	.1250
5/64	.0781
3/16	.1875
7/64	.1094
1/4	.2500
9/64	.1406
5/16	.3125
11/64	.1719
3/8	.3750
13/64	.2031
7/16	.4375
15/64	.2344
1/2	.5000
17/64	.2656
9/16	.5625
19/64	.2969
5/8	.6250
21/64	.3281
3/4	.7500
23/64	.3594
7/8	.8750
25/64	.3906
1	1.0000

Obverse

WIRE & LETTER DRILL SIZES	DECIMAL EQUIVALENTS
A	.1250
B	.1063
C	.0938
D	.0813
E	.0688
F	.0563
G	.0438
H	.0313
J	.0188
K	.0156
L	.0125
M	.0100
N	.0078
P	.0063
R	.0050
S	.0039
T	.0031
V	.0025
W	.0019
X	.0016
Y	.0013
Z	.0010

Reverse

Price 5/6 each

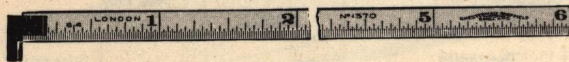
A  
very  
useful  
rule  
for  
Mechanics,  
Toolmakers,  
etc.

The **Obverse side** is clearly engraved on one edge from zero to 6 in., in inches and 64ths, quick reading, i.e., the 64ths divisions being numbered in multiples. Also marked vertically in fractions from 1/64th to 63/64ths and decimal equivalents.

**Reverse side** is engraved with Wire and Letter Drill sizes, viz.: Letter A to Z and decimal equivalents, Number 1 to 80 and decimal equivalents.

The above combination will be appreciated for its useful purpose in determining at a glance the respective equivalents or vice versa and is invaluable in general engineering practice.

## Narrow Hook Rules



No. 1370

These Rules are designed specially for taking measurements through small holes approximately 11/32 inch.

No.	Length ...	6	12 inches
1370	Marked on one side inches into 32nds, other side inches into 64ths ...	10/-	13/6 each
1370/1	Marked on one side inches into 64ths, other side inches into 100ths ...	10/-	13/6 ..
1370/2	Marked on one side inches into 32nds, other side centimetres into millimetres ...	10/-	13/6 ..
	Rules only can be supplied without hook at the following prices ...	6/9	10/- ..





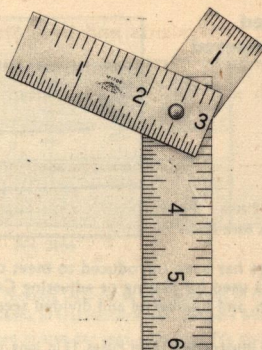
## Multi-combination Width Gauge and Steel Rule

No. 1706

A unique gauge and rule for use in restricted spaces, over flanges or shoulders in a recess; very suitable for Turners. By using a combination, one is able to determine measurements from the rule in multiples of 1, 2, 3, 4, 5 and 6 inches. The end of the 2-in. blade being divided into 16ths, gives the 1 in. size by the width of blade.

Comprises three steel blades of 2, 3 and 4 inches, section 1 in.  $\times$  .04 in. riveted together and folding up to 4 in.  $\times$  1 in. The rules are graduated and figured on both sides, in inches and 8ths and inches and 16ths respectively.

Price 13/6 each



No. 1706 (Patent applied for)

## Special Thickness or Wear Testing Gauges

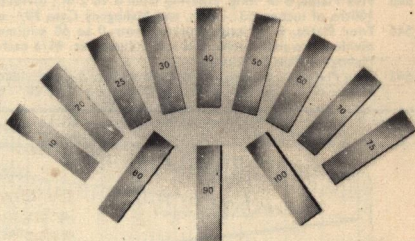
No. 5802

Each set consisting of 12 loose Gauge Blades, 2 in.  $\times$   $\frac{1}{2}$  in. made of best quality hardened, tempered and ground steel, to the following thicknesses: 10, 20, 25, 30, 40, 50, 60, 70, 75, 80, 90 and 100/1000 inches.

Each blade is engraved with the respective thickness and the set is fitted into a compact imitation leather case. Tolerance limits within + and - .0002 in.

Price 18/- the Set

Note.—For sets with tolerance limits within + and - .0001 in.: price upon application



No. 5802

## Fillet Welding Gauge

No. 2930

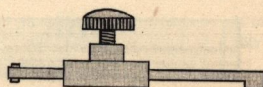
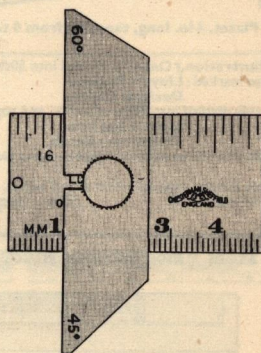
This gauge has been specially designed to the specifications, and primarily to meet the needs, of Inspectors of Lloyd's Register of Shipping for the purpose of checking welded fillets on frame ribs and plates in shipbuilding.

The blade is 1  $\frac{1}{2}$  in. overall  $\times$  1 in. wide  $\times$  1/16 in. and is divided on two edges of one side in 16ths to 1  $\frac{1}{8}$  in. and in mms. to 47 mms.

The beam is 2  $\frac{1}{2}$  in.  $\times$   $\frac{5}{8}$  in.  $\times$  5/32 in. and has angles to 45° and 60° respectively. A stop at the zero edge and a bar at the terminal prevents the beam being separated from the blade.

Measurements of welded fillets can be obtained to a depth of 1  $\frac{1}{8}$  in. and 30 mms. respectively.

Price 36/- each



No. 2930

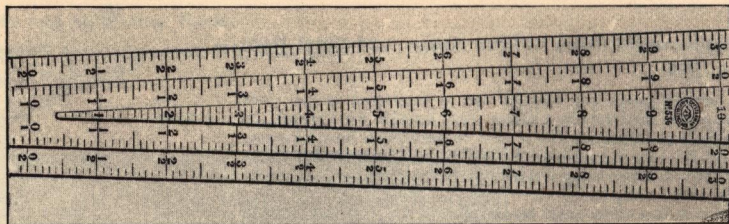




Marked with name and trade mark

# Steel Angular Gauges

## Hardened and Tempered



No. 536.  
With Four Plates  
(including a Base Plate)

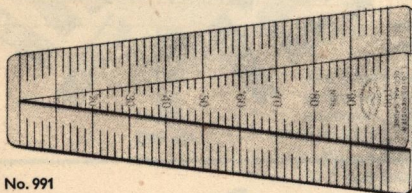
This Gauge has been introduced to meet the requirements of engineers, for use with testing machines, or in general work. It is used for testing or adjusting Callipers, and is composed of one or more pieces of Steel, tapering to some fixed ratio, and numbered and divided accordingly.

No.

- 536 (See illustration.) Four Plates, 12 in. long, tapering from 0 to 3 in.; divided into 100ths of inches. 189/- each, and Mahogany Case 35/- extra.  
540 Five Plates, 6 in. long, tapering from 0 to 2 in.; divided into 100ths of inches. 63/- each, and Mahogany Case 20/- extra.  
544 Four Plates, 6 in. long, tapering from 0 to 60 millimetres; divided into millimetres and half millimetres. 94/6 each, and Mahogany Case 24/- extra.  
542 Two Plates, 12 in. long, tapering from 0 to 1 in.; divided into 100ths of inches. 67/- each, and Mahogany Case 20/- extra.

No.

- 992 Four Plates, 13 in. long, tapering from 0 to 75 millimetres; divided into 10ths of millimetres. 189/- each, and Mahogany Case 35/- extra.  
543 Two Plates, 12 in. long, tapering from 0 to 2 in.; divided into 100ths of inches. 78/6 each, and Mahogany Case 20/- extra.  
5476 Four Plates, 4 in. long, tapering from .1 to 1.7 in.; reading into 100ths of inches. 61/- each.  
5576 Four Plates, 4 in. long, tapering from 0 to 2 in.; reading into 64ths of inches. 61/- each.



No. 991

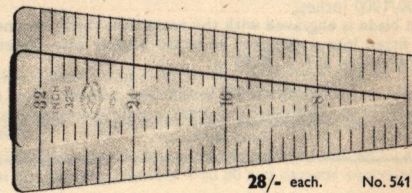
With Three Plates, 4 in. long, tapering from 0 to 2 in.

No.

- 991 (See illustration.) One side divided into 50ths of inches, and top plate marked: **Lloyd's Register Decimal Gauge.**  
Other side divided into 20ths of inches, and top plate marked: **Lloyd's Register Twentieths Gauge.**  
538 One side divided into 20ths of inches, other side into 32nds of inches.  
539 One side divided into millimetres and halves, other side into 100ths of inches.

No.

- 541 One side divided into 32nds of inches, other side into 100ths of inches.  
545 One side divided into 32nds of inches, other side into 40ths of inches.  
546 One side divided into 20ths of inches, other side into 100ths of inches.  
548 One side divided into 50ths of inches, other side into 40ths of inches.  
549 One side divided into 50ths of inches, other side into 20ths of inches.

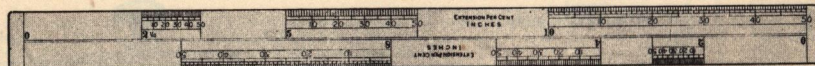


28/- each. No. 541

**Rustless Steel "Elongation" Rule, 15 x 1 1/4 x 6/100 in., to be used with above**



OBVERSE



REVERSE

No. 1278R Scales for indicating Elongation per cent. in 1 1/2, 3, 6, 3 1/2, 2, 4, 8, 2 1/2, 5 and 10 inches.

27/- each.



# Area Reduction Gauges

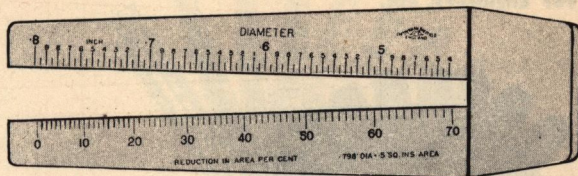
115

Marked with name and trade mark



## For determining the reduction in area per cent. on Test Pieces

( $\frac{1}{2}$ ,  $\frac{1}{4}$  and  $\frac{1}{8}$  in. Standard Test Pieces)

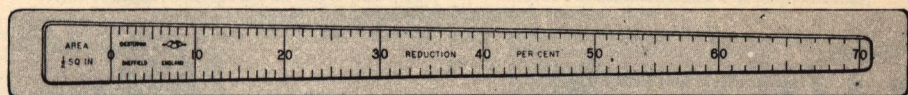


Made of Best Hardened and Tempered Steel

No. 2566

At the request of two of the largest users of Testing Machines in the country, we have recently introduced two patterns of these Gauges. One for direct reading (female pattern), and the other (male pattern) for reading by means of transference with callipers from test piece to the Gauge. In both methods the respective Gauges show instantaneously the reduction in area per cent. after test. We claim that more accurate readings are made, and a great deal of time is saved, by using these Gauges, than the old orthodox method of working out by the aid of text books and calculating.

Each pattern is made for  $\frac{1}{2}$ ,  $\frac{1}{4}$ , and  $\frac{1}{8}$  in. Test Pieces respectively.



No. 2565

Male pattern				Female pattern			
No.				No.			
2565	...	For $\frac{1}{2}$ -in. Test Pieces	67/- each	2566	...	For $\frac{1}{2}$ -in. Test Pieces	112/- each
2565/1	...	For $\frac{1}{4}$ -in. Test Pieces	67/- "	2566/1	...	For $\frac{1}{4}$ -in. Test Pieces	112/- "
2565/2	...	For $\frac{1}{8}$ -in. Test Pieces	67/- "	2566/2	...	For $\frac{1}{8}$ -in. Test Pieces	112/- "

## Steel Telescopic Gauge

### For taking internal Measurements of Tyres, Tubes, Pipes, etc.



No. 5471/1

This Gauge is marked in inches and 1/10ths, with a Vernier reading to 1/100ths. It is made of hardened Steel throughout.

Sizes	6 to 10 in.	9 to 16 in.	15 to 27 in.	26 to 48 in.
	67/- each	90/- each	112/- each	180/- each

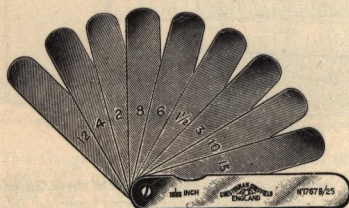
We can also supply a larger size, 42 to 72 in. Prices on application.



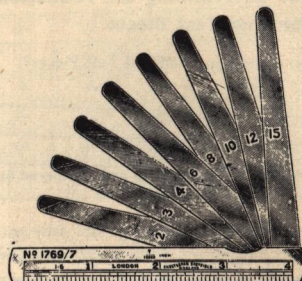


# Steel Feeler or Thickness Gauges

For Engineers, etc.



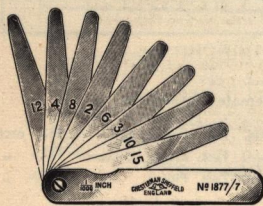
No. 1767B/25



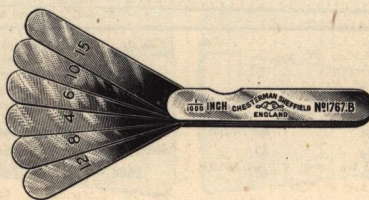
No. 1769/7

Each article consists of a series of Tempered Steel Blades of varying thicknesses which may be used singly or in combination.

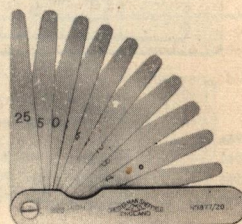
The blades fold into a metal case similar to a pocket knife, and each blade is engraved with a number denoting the thickness in thousandths of an inch.



No. 1877/7



No. 1767B



No. 1877/20

## WITH STRAIGHT BLADES 3 in. long $\times$ $\frac{1}{2}$ in. wide.

No. 1767B	(See illustration.) 6 blades, viz., 4, 6, 8, 10, 12, and 15/1000ths	54/- doz.
1767B/7	8 blades, viz., 2, 3, 4, 6, 8, 10, 12, and 15/1000ths	65/- "
1767B/25	(See illustration.) 9 blades, viz., $1\frac{1}{2}$ , 2, 3, 4, 6, 8, 10, 12, and 15/1000ths	71/- "
1767B/32	9 blades, viz., $1\frac{1}{2}$ , 2, 3, 4, 6, 8, 10, 15, and 25/1000ths	71/- "

## As above but WITH TAPERED BLADES, 3 in. long $\times$ $\frac{1}{2}$ in. wide.

No. 1877	6 blades, viz., 4, 6, 8, 10, 12, and 15/1000ths	60/- doz.
1877/7	(See illustration.) 8 blades, viz., 2, 3, 4, 6, 8, 10, 12, and 15/1000ths	74/- "
1877/25	9 blades, viz., $1\frac{1}{2}$ , 2, 3, 4, 6, 8, 10, 12, and 15/1000ths	80/- "
1877/32	9 blades, viz., $1\frac{1}{2}$ , 2, 3, 4, 6, 8, 10, 15, and 25/1000ths	80/- "
1877/20	(See illustration.) 10 blades, viz., $1\frac{1}{2}$ , 2, 3, 4, 6, 8, 10, 12, 15, and 25/1000ths	87/- "

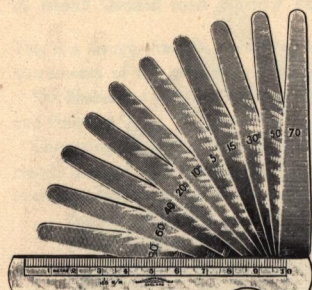
## WITH TAPERED BLADES. 4 in. long $\times$ $\frac{1}{2}$ in. wide Case machine-divided for use as a Rule.

No. 1769	6 blades, viz., 4, 6, 8, 10, 12, and 15/1000ths, case marked inches and 16ths on one side and millimetres the other	72/- doz.
1769/7	(See illustration.) 8 blades, viz., 2, 3, 4, 6, 8, 10, 12, and 15/1000ths, case marked inches and 16ths on one side and millimetres the other	90/- "
1769/32	9 blades, viz., $1\frac{1}{2}$ , 2, 3, 4, 6, 8, 10, 15, and 25/1000ths	99/- "
1769/20	10 blades, viz., $1\frac{1}{2}$ , 2, 3, 4, 6, 8, 10, 12, 15, and 25/1000ths, case marked as No. 1769	108/- "
1874/7	8 blades, viz., 2, 3, 4, 6, 8, 10, 12, and 15/1000ths, case marked inches and 16ths on one side, and inches, 10ths, 20ths, 50ths on the other side	90/- "

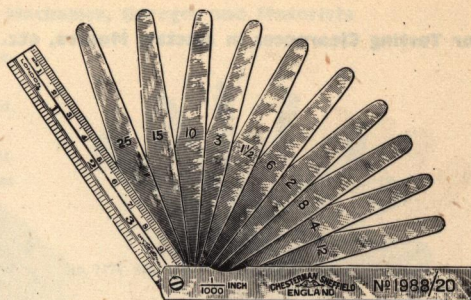
## Plain Case.

1879	6 blades, viz., 4, 6, 8, 10, 12, and 15/1000ths	69/- "
1879/7	8 blades, viz., 2, 3, 4, 6, 8, 10, 12, and 15/1000ths	81/- "
1879/25	9 blades, viz., $1\frac{1}{2}$ , 2, 3, 4, 6, 8, 10, 12, and 15/1000ths	90/- "
1879/32	9 blades, viz., $1\frac{1}{2}$ , 2, 3, 4, 6, 8, 10, 15, and 25/1000ths	90/- "





No. 1773/4



No. 1988/20

Each article consists of a series of Tempered Steel Blades of varying thicknesses which may be used singly or in combination.

## WITH STRAIGHT BLADES. 3 in. long $\times \frac{1}{2}$ in. wide.

The thickness varying by 100ths of a millimetre. The blades fold into a Metal Case, and each blade is engraved with the number denoting the thickness in 100ths of millimetres.

No.		
1768B	6 blades, viz., 10, 15, 20, 25, 30, and 40/100ths of a millimetre	54/- doz.
1768B/2	8 blades, viz., 5, $7\frac{1}{2}$ , 10, 15, 20, 25, 30, and 40/100ths of a millimetre	65/- "
1768B/4	10 blades, viz., 5, 10, 15, 20, 30, 40, 50, 60, 70, and 80/100ths of a millimetre	76/- "
1768B/7	10 blades, viz., 10, 20, 30, 40, 50, 60, 70, 80, 90, and 100/100ths of a millimetre	76/- "

## WITH TAPERED BLADES. 3 in. long $\times \frac{1}{2}$ in. wide.

1965	6 blades, viz., 10, 15, 20, 25, 30, and 40/100ths of a millimetre	60/- doz.
1965/2	8 blades, viz., 5, $7\frac{1}{2}$ , 10, 15, 20, 25, 30, and 40/100ths of a millimetre	74/- "
1965/4	10 blades, viz., 5, 10, 15, 20, 30, 40, 50, 60, 70, and 80/100ths of a millimetre	87/- "
1965/7	10 blades, viz., 10, 20, 30, 40, 50, 60, 70, 80, 90, and 100/100ths of a millimetre	87/- "

## WITH TAPERED BLADES. 4 in. long $\times \frac{1}{2}$ in. wide, and the Case machine-divided for use as a Rule.

1773	6 blades, viz., 10, 15, 20, 25, 30, and 40/100ths of a millimetre	72/- doz.
1773/2	8 blades, viz., 5, $7\frac{1}{2}$ , 10, 15, 20, 25, 30, and 40/100ths of a millimetre	90/- "
1773/4	(See illustration.) 10 blades, viz., 5, 10, 15, 20, 30, 40, 50, 60, 70, and 80/100ths of a millimetre	108/- "
1773/7	10 blades, viz., 10, 20, 30, 40, 50, 60, 70, 80, 90, and 100/100ths of a millimetre	108/- "
1878	6 blades, exactly same as No. 1773, but with case plain	69/- "
1878/4	10 blades, exactly same as No. 1773/4, but with case plain	99/- "

## WITH TAPERED BLADES. 4 in. long $\times \frac{1}{2}$ in. wide, and machine-divided Steel Rule folding up into a plain Metal Case.

1988	6 blades, viz., 4, 6, 8, 10, 12, and 15/1000ths and steel rule marked 16ths and millimetres	80/- doz.
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## WITH TAPERED BLADES. 4 in. long (continued)

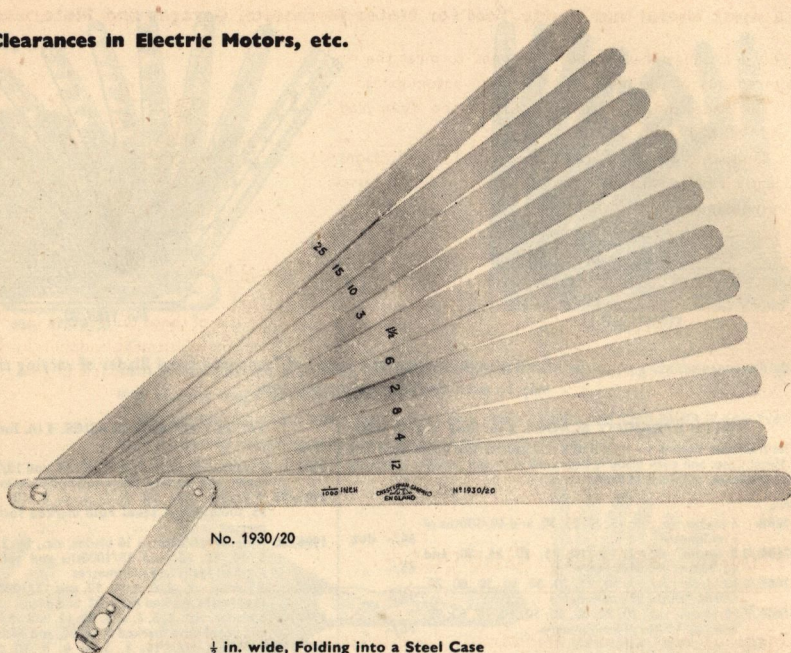
No.		
1988/7	8 blades, viz., 2, 3, 4, 6, 8, 10, 12, and 15/1000ths steel rule marked 16ths and millimetres	98/- doz.
1988/32	9 blades, viz., $1\frac{1}{2}$ , 2, 3, 4, 6, 8, 10, 15, and 25/1000ths and steel rule marked 16ths millimetres	107/- "
1988/20	(See illustration.) 10 blades, viz., $1\frac{1}{2}$ , 2, 3, 4, 6, 8, 10, 12, 15, and 25/1000ths and steel rule marked 16ths and millimetres	116/- "
1989	6 blades, viz., 4, 6, 8, 10, 12, and 15/1000ths and steel rule marked 8, 16, 32, and 64ths	80/- "
1989/7	8 blades, viz., 2, 3, 4, 6, 8, 10, 12, and 15/1000ths and steel rule marked 8, 16, 32, and 64ths	98/- "
1989/32	9 blades, viz., $1\frac{1}{2}$ , 2, 3, 4, 6, 8, 10, 15, and 25/1000ths and steel rule marked 8, 16, 32, and 64ths	107/- "
1989/20	10 blades, viz., $1\frac{1}{2}$ , 2, 3, 4, 6, 8, 10, 12, 15, and 25/1000ths and steel rule marked 8, 16, 32, and 64ths	116/- "
1990	6 blades, viz., 4, 6, 8, 10, 12, and 15/1000ths and steel rule marked 16, 32, 64, 10, 20, 50, and 100ths	87/- "
1990/7	8 blades, viz., 2, 3, 4, 6, 8, 10, 12, and 15/1000ths and steel rule marked 16, 32, 64, 10, 20, 50, and 100ths	105/- "
1990/32	9 blades, viz., $1\frac{1}{2}$ , 2, 3, 4, 6, 8, 10, 15, and 25/1000ths and steel rule marked 16, 32, 64, 10, 20, 50, and 100ths	114/- "
1990/20	10 blades, viz., $1\frac{1}{2}$ , 2, 3, 4, 6, 8, 10, 12, 15, and 25/1000ths and steel rule marked 16, 32, 64, 10, 20, 50, and 100ths	123/- "
1991	6 blades, viz., 4, 6, 8, 10, 12, and 15/1000ths and steel rule marked 16, 32, 64ths, centimetres, millimetres and halves	81/- "
1991/7	8 blades, viz., 2, 3, 4, 6, 8, 10, 12, and 15/1000ths and steel rule marked 16, 32, 64ths, centimetres, millimetres and halves	101/- "
1991/32	9 blades, viz., $1\frac{1}{2}$ , 2, 3, 4, 6, 8, 10, 15, and 25/1000ths and steel rule marked 16, 32, 64ths, centimetres, millimetres and halves	108/- "
1991/20	10 blades, viz., $1\frac{1}{2}$ , 2, 3, 4, 6, 8, 10, 12, 15, and 25/1000ths and steel rule marked 16, 32, 64ths, centimetres, millimetres and halves	117/- "
1996	6 blades, viz., 10, 15, 20, 25, 30, and 40/100ths of a millimetre and steel rule marked centimetres, millimetres and halves	80/- "





# Feeler or Air Gap Gauges

For Testing Clearances in Electric Motors, etc.



No. 1930/20

$\frac{1}{2}$  in. wide, Folding into a Steel Case

	No.	Description	12	18	24 inches
ENGLISH	1930	6 blades, viz., 4, 6, 8, 10, 12, and 15/1000ths of an inch ...	18/-	24/6	30/- each
	1930/7	8 blades, viz., 2, 3, 4, 6, 8, 10, 12, and 15/1000ths of an inch ...	22/-	30/-	37/- "
	1930/8	6 blades, viz., 4, 6, 8, 10, 15, and 20/1000ths of an inch ...	18/-	24/6	30/- "
	1930/14	11 blades, viz., 10, 12, 14, 16, 18, 20, 22, 24, 26, 28, and 30/1000ths of an inch ...	28/-	38/-	48/- "
	1930/15	8 blades, viz., 5, 10, 15, 20, 25, 30, 35, and 40/1000ths of an inch ...	22/-	30/-	37/- "
	1930/13	10 blades, viz., 10, 20, 30, 40, 50, 60, 70, 80, 90, and 100/1000ths of an inch ...	46/-	66/-	76/6 "
	1930/16	10 blades, viz., 2, 3, 4, 6, 8, 10, 12, 15, 20, and 25/1000ths of an inch ...	26/-	35/-	44/6 "
	1930/18	10 blades, viz., 5, 10, 15, 20, 25, 30, 35, 40, 45, and 50/1000ths of an inch ...	32/6	46/-	55/- "
	1930/19	10 blades, viz., $1\frac{1}{2}$ , 2, 2, 3, 4, 6, 8, 10, 15, and 25/1000ths of an inch ...	26/-	35/-	44/6 "
	1930/20	10 blades, viz., $1\frac{1}{2}$ , 2, 3, 4, 6, 8, 10, 12, 15, and 25/1000ths of an inch ...	26/-	35/-	44/6 "
	1930/22	11 blades, viz., 2, 3, 4, 5, 6, 8, 10, 12, 15, 20, and 25/1000ths of an inch ...	28/-	38/-	48/- "
	1930/27	10 blades, viz., 4, 5, 6, 8, 10, 12, 15, 20, 25, and 30/1000ths of an inch ...	26/-	35/-	44/6 "
METRE	1930/29	7 blades, viz., 10, 12, 14, 16, 18, 20, and 40/1000ths of an inch ...	20/6	27/-	33/6 "
	1933	6 blades, viz., 10, 15, 20, 25, 30, and 40/100ths of a millimetre ...	18/-	24/6	30/- "
	1933/20	6 blades, viz., 10, 20, 30, 50, 75, and 100/100ths of a millimetre ...	18/-	24/6	30/- "
	1933/21	7 blades, viz., 10, 20, 30, 50, 75, 100 and 200/100ths of a millimetre ...	23/6	32/6	39/- "
	1933/7	10 blades, viz., 10, 20, 30, 40, 50, 60, 70, 80, 90, and 100/100ths of a millimetre ...	26/-	35/-	44/6 "



# Steel Motor Feeler Gauge

119

Marked with name and trade mark



## A most Useful and Handy Tool for Motor Mechanics, Garages and Motorists

This is a Gauge that has been designed to meet the requirements of the majority of modern automobiles.

The Blades and Case are made of Hardened, Tempered, and Polished Steel.

Consisting of Four Parallel and Two Tapered Blades, clearly marked with their respective uses and thicknesses in thousandths of an inch, viz.:—

Spark Plug, .025 in.

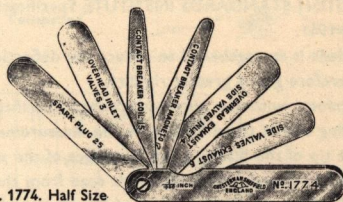
Overhead Inlet Valves, .003 in.

Contact Breaker for Coil Ignition, .015 in.

Contact Breaker for Magneto Ignition, .012 in.

Overhead Exhaust Valves and Side-by-Side Inlet Valves, .004 in.

Side-by-Side Exhaust Valves, .006 in.



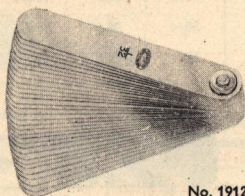
No. 1774. Half Size

By the use of these Gauges the motorist is enabled to obtain correct adjustment, and thereby receive the highest efficiency the engine is capable of giving.

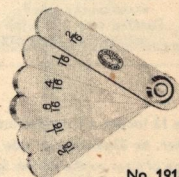
No. 1774	6 Blades, viz.: 3, 4, 6, 12, 15, and 25/1000ths of an inch ... ..	54/- per dozen
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## Roller Setting Gauges

Made of Best Quality Hardened, Tempered and Polished Steel



No. 1912



No. 1914

These gauges are used in the Textile trade for spacing and setting rollers on Drawing Frames in the process of converting yarn into thread.

No.	Description	
1911	Section $3\frac{1}{2} \times \frac{1}{2}$ in., consisting of 16 blades in multiples of $1/16$ in. ... ..	21/- each
1912	Section $3\frac{1}{2} \times \frac{1}{2}$ in., consisting of 32 blades in multiples of $1/32$ in. ... ..	42/- "
1913	Section $2\frac{1}{2} \times \frac{1}{2}$ in., consisting of 6 blades, viz.: $2/32$ . $1/32$ . $4/32$ . $6/32$ . $2/32$ . $1/32$ in. ... ..	12/6 "
1914	Section $2\frac{1}{2} \times \frac{1}{2}$ in., consisting of 6 blades, viz.: $2/16$ . $1/16$ . $4/16$ . $6/16$ . $2/16$ . $1/16$ in. ... ..	15/- "





# Standard Try Squares

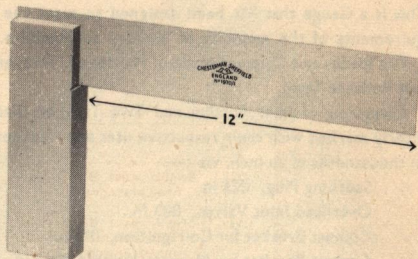
## Engineers, Bright Hardened and Precision Ground

Our Standard Squares comply with the requirements of THE BRITISH STANDARDS INSTITUTE Specification, issue No. 939-1941.

The Blade is strengthened to reduce the deflection under load, therefore giving greater rigidity.

To conform with the above-mentioned specification the designating size of these Squares is the measurement taken from the tip of the blade to the inner face of the stock. On the divided patterns the graduations read from the base of the stock, this increases the length of the graduated blade by an amount equal to the width of stock. The Squares have hardened stocks and hardened and tempered blades, which has always been our practice.

The greatest skill and care go into their manufacture. All Squares are specially tested and checked before leaving our works.



### DIMENSIONS OF RESPECTIVE SECTIONS

	3	4	6	9	12	18	24 inches
Length of Blade ...	3 $\frac{3}{8}$	4 $\frac{7}{8}$	7 $\frac{1}{2}$	10 $\frac{1}{2}$	13 $\frac{3}{8}$	20	26 $\frac{1}{2}$ inches
Width of Blade ...	$\frac{3}{8}$	$\frac{1}{2}$	$\frac{1}{2}$	$\frac{1}{2}$	2	2 $\frac{1}{2}$	2 $\frac{1}{2}$ "
Thickness of Blade ...	.04	.05	.07	.085	.100	.115	.125 "
Length of Stock ...	2 $\frac{1}{2}$	3	4 $\frac{1}{2}$	6	8	10 $\frac{1}{2}$	14 "
Width of Stock ...	$\frac{3}{8}$	$\frac{1}{2}$	$\frac{1}{2}$	$\frac{1}{2}$	$\frac{1}{2}$	2	2 $\frac{1}{2}$ "
Thickness of Stock ...	.385	.515	.650	.780	.915	1.050	1.300 "

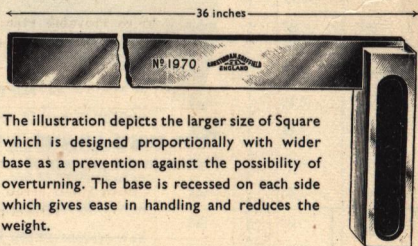
No.	Length of Blade ...	3	4	6	9	12	18	24 inches
1970/1	Not divided ...	32/6	37/-	52/6	80/-	104/-	190/-	200/- each
*1971/1	Divided into 32nds on one side and 64ths on the other ...	36/-	40/6	58/-	88/-	115/-	209/-	220/- "
1972/1	Divided into 32nds on one side and millimetres on the other ...	36/-	40/6	58/-	88/-	115/-	209/-	220/- "

\* Above 12 inches are divided into 16ths on one side and 32nds on the other, or 32nds on one side and millimetres on the other.

The range of sizes to the British Standards Institute Specification does not go beyond 24 in.

For larger sizes see below.

Oak Sheath Protection Cases can be supplied for above at extra cost.



The illustration depicts the larger size of Square which is designed proportionally with wider base as a prevention against the possibility of overturning. The base is recessed on each side which gives ease in handling and reduces the weight.

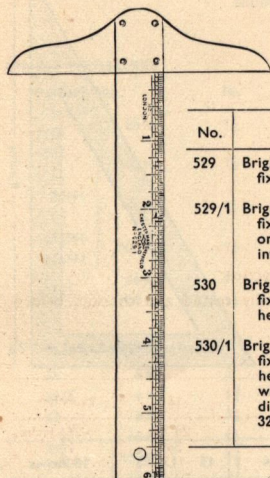
Dimensions of Base	Dimensions of Blade	Price
18 x 3 x 1 $\frac{1}{2}$ inches	36 x 2 $\frac{3}{4}$ x $\frac{1}{8}$ inches	£22 15 0 each
24 x 3 $\frac{1}{2}$ x 2 "	48 x 3 x $\frac{1}{4}$ "	£44 2 0 "
27 x 3 $\frac{1}{2}$ x 2 $\frac{1}{4}$ "	60 x 3 $\frac{1}{4}$ x $\frac{3}{8}$ "	£59 10 0 "
30 x 4 x 2 $\frac{1}{4}$ "	72 x 3 $\frac{1}{2}$ x $\frac{1}{2}$ "	£77 10 0 "





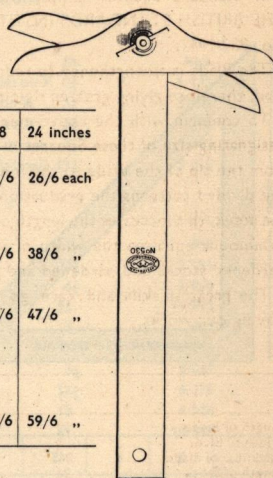
## T Squares for Engravers, Fitters, etc.

With Brass Stocks and Bright Tempered Steel Blades



No. 529/1

No.		6	8	10	12	15	18	24 inches
529	Bright Steel Blade, with fixed brass head ...	10/-	11/6	13/-	14/6	19/6	20/6	26/6 each
529/1	Bright Steel Blade, with fixed brass head, and with one edge machine-divided into inches and 32nds ...	13/-	14/6	16/6	18/6	28/6	30/6	38/6 ..
530	Bright Steel Blade, with fixed and movable brass head, with lock nuts ...	20/6	23/6	26/6	29/6	34/6	39/6	47/6 ..
530/1	Bright Steel Blade, with fixed and movable brass head, with lock nuts, and with one edge machine-divided into inches and 32nds ...	23/-	26/6	30/-	33/6	41/6	49/6	59/6 ..



No. 530

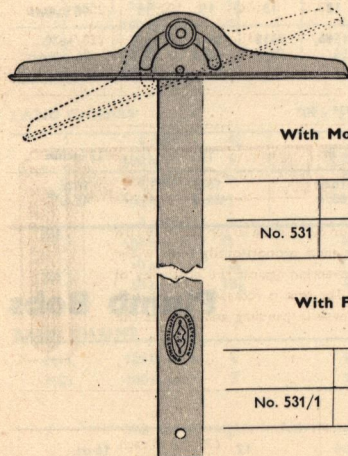
## Steel T Squares for Draughtsmen

With Movable Head and Hardened Steel Blades  
Nickel-plated throughout

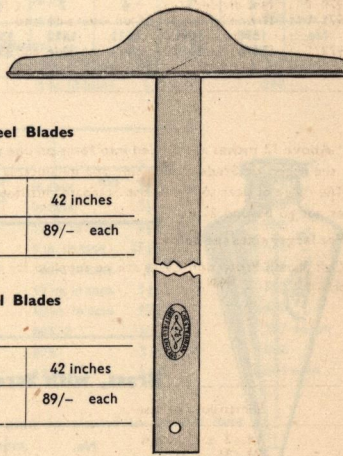
	24	30	36	42 inches
No. 531	46/-	59/6	75/-	89/- each

With Fixed Head and Hardened Steel Blades  
Nickel-plated throughout

	24	30	36	42 inches
No. 531/1	46/-	59/6	75/-	89/- each



No. 531

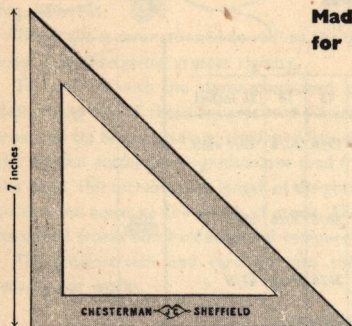


No. 531/1



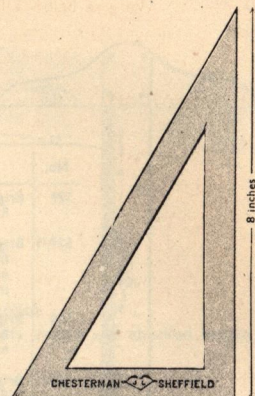


Marked with name and trade mark



No. 1602

**Made of Rustless Steel  
for Engineers and Draughtsmen**



No. 1592

Angles  $45^\circ \times 45^\circ \times 90^\circ$ 

	3	4	5	6	7	8	9	10	12	14	15	16	18 inches
No.	1598 23/6	1595 27/-	1601 30/-	1604 33/6	1602 35/6	1600 38/6	1596 45/6	1606 54/-	1607 62/6	1597 77/6	1657 84/6	1659 94/6	1658 118/- each

Angles  $30^\circ \times 60^\circ \times 90^\circ$ 

	4	5	6	7	8	9	10	11	12	13	15	16	18 inches
No.	1590 23/6	1591 23/6	1611 30/-	1612 33/6	1592 35/6	1613 35/6	1610 38/6	1593 47/-	1594 54/-	1615 59/-	1616 62/6	1617 70/6	1630 84/6 each

Angles  $22\frac{1}{2}^\circ \times 67\frac{1}{2}^\circ \times 90^\circ$ 

	6	7	8	10	12 inches
No.	1623 23/6	1624 30/-	1620 33/6	1621 35/6	1622 45/6



No. 1760

## Plumb Bobs

**Brass, with Screw Cap and Steel Point**

No.	6	8	12	16 oz.
1760	13/6	15/-	19/-	22/- each



We give below a list of weights of various articles of our manufacture which will be found very useful for Postal and Shipping Specifications

## LINEN MEASURES

Pattern No.		lb.	kgs.
34L	} 66 ft.	1½	-567 each
1526			
1535			
1534	} 100 ft.	1½	-793 "
34FH	} 66 ft.	1½	-567 "
1527			
1535FH			
1534FH	} 100 ft.	1½	-681 "
1533	} 66 ft.	1	-453 "
	100 ft.	1½	-567 "

## STEEL MEASURES

52	6 ft.	3	1-361 dozen
36SS	6 ft.	1½	-793 ..
42	6 ft.	1½	-567 ..
50 }	66 ft.	1½	-567 each
	100 ft.	1½	-681 ..
777/1 }	66 ft.	2½	1-135 ..
	100 ft.	3	1-361 ..
38L }	66 ft.	1	-453 ..
	100 ft.	1½	-567 ..
153 }	66 ft.	1½	-567 ..
	100 ft.	2	-907 ..
155 }	66 ft.	1½	-793 ..
	100 ft.	2½	1-135 ..
	66 ft.	2	-907 ..
150 }	100 ft.	3	1-361 ..

## LAND CHAINS

61 }	4 poles	4½	1-928 ..
	100 ft.	5	2-268 ..
62 }	4 poles	9	4-082 ..
	100 ft.	11	4-990 ..
258 }	4 poles	9	4-082 ..
	100 ft.	11	4-990 ..
261 }	10 m.	2½	1-021 ..
	50 m.	10½	4-794 ..

## BAND CHAINS

2111	100 ft. on X	4	1-814 ..
2123	100 ft. on X	3	1-361 ..

Pattern No.		lb.	kgs.
2122	4 poles on X	2½	1-135 each
2112	100 ft. on X	5½	2-596 ..
2231 }	25 m. on X	3½	1-588 ..
	50 m. in case	7½	3-403 ..
2312	500 ft. on reel	11½	5-218 ..

## STRAIGHT EDGES

48 }	36 in.	1½	-567 ..
	72 in.	4½	2-154 ..
89 }	36 in.	6½	2-950 ..
	72 in.	26	11-793 ..
90 }	36 in.	2	-907 ..
	72 in.	5½	2-596 ..
91 }	36 in.	4½	2-042 ..
	72 in.	14½	6-576 ..
107 }	36 in.	10	4-536 ..
	72 in.	41	18-598 ..

## STEEL RULES

Straight Rules			
1 dozen	4 in.	6 oz.	171 dozen
1 ..	6 in.	8	-228 ..
1 ..	12 in.	2 lb.	-907 ..
1 ..	24 in.	5	2-268 ..
1 only	6 ft.	3½	1-588 each
Folding Rules			
1 dozen	2 ft. (1 fold)	2½	1-247 dozen
1 ..	1 ft. (3 fold)	½	-228 ..

## GAUGES

92		3	1-361 each
367	In case	5½	2-596 ..
368	In case	3½	1-588 ..
369 }	12 in. in case	6½	2-950 ..
	1 m. in case	27½	12-473 ..
770/1 }	6 in. in case	¾	-340 ..
	12 in. in case	1½	-793 ..
360/1	40 in. in case	12½	5-670 ..
1 dozen	885/2	1½	-567 dozen
1 ..	878	3 oz.	-085 ..
1970/1	12 in.	5½ lb.	2-591 each

The above weights include immediate wrappings and cartons. We shall be pleased to let you have any further information you may desire

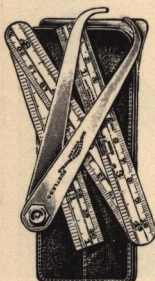




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# Tools Suitable for Presentation

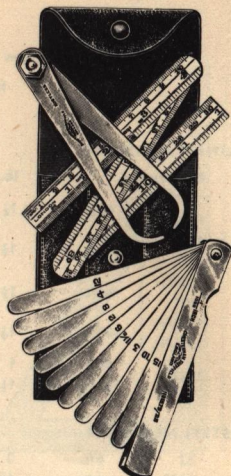
## Pocket Spring Measures in Nickel Silver and Plastic Cases



12-in. Rule and 4-in.  
Calliper in case



Riband Rule, showing Advertisements



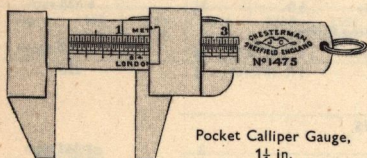
12-in. Rule, 4-in. Calliper, and 4-in.  
Feeler Gauge, in case



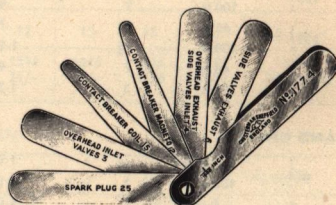
No. 52. Ribband Rule, 6 ft., in plastic case



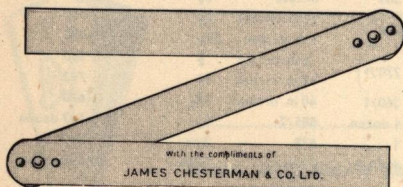
Case for Folding Rule



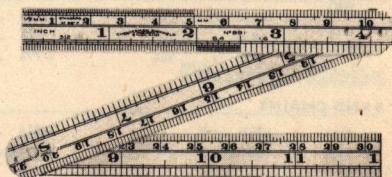
Pocket Calliper Gauge,  
1 1/2 in.



Motor Feeler Gauge, 3 in.



No. 891. 12-in. Rule, showing both sides



We shall be pleased to quote special prices for quantities as an advertising medium; the goods are of the same standard quality as our regular stock patterns

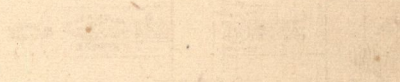
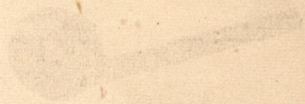
JAMES CHESTERMAN & CO. LTD., SHEFFIELD 11, ENGLAND

Made and printed in Great Britain by Lund, Humphries, London and Bradford.



# Tools Suitable for Presentation

LOCKER SPRING MEASUREMENT  
IN LOCKER SPRING AND FINGER CASE



WATER & POWER CO. LTD. LONDON, ENGLAND

Now and again in Great Britain by J. H. Houghton, London, England



# Tools Available for Preservation

Procedures for the treatment  
of acid and alkali damage



Fig. 1. Diagram of the application of repair material to a damaged area. Fig. 2. Diagram of the application of repair material to a damaged area. Fig. 3. Diagram of the application of repair material to a damaged area. Fig. 4. Diagram of the application of repair material to a damaged area. Fig. 5. Diagram of the application of repair material to a damaged area. Fig. 6. Diagram of the application of repair material to a damaged area. Fig. 7. Diagram of the application of repair material to a damaged area. Fig. 8. Diagram of the application of repair material to a damaged area. Fig. 9. Diagram of the application of repair material to a damaged area. Fig. 10. Diagram of the application of repair material to a damaged area.



Fig. 11. Diagram of the application of repair material to a damaged area. Fig. 12. Diagram of the application of repair material to a damaged area. Fig. 13. Diagram of the application of repair material to a damaged area. Fig. 14. Diagram of the application of repair material to a damaged area. Fig. 15. Diagram of the application of repair material to a damaged area. Fig. 16. Diagram of the application of repair material to a damaged area. Fig. 17. Diagram of the application of repair material to a damaged area. Fig. 18. Diagram of the application of repair material to a damaged area. Fig. 19. Diagram of the application of repair material to a damaged area. Fig. 20. Diagram of the application of repair material to a damaged area.



